

E.N.I.G.M.A.

EUROPEAN NUMBERS INFORMATION GATHERING &
MONITORING ASSOCIATION

ISSUE 13

SEARCHER AGENT



PART 2

MESSAGE COMPOSITION

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Welcome to issue 13 of the E.N.I.G.M.A. Newsletter.

ENIGMA is the journal of the European Numbers Information Gathering and Monitoring Association.

ENIGMA is a non-profit making association of listeners who monitor and gather information on 'Number Stations' and other related radio transmissions. ENIGMA aims to bring together listeners and enthusiasts and provide quality information on subjects not normally available from main-stream publications.

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Contributions

We appreciate all contributions to the newsletter (including anonymous information). We regret that we are not always able to provide a personal reply but, rest assured, we read and collate all information for present and future use. Questions are answered via our " Letters to ENIGMA " pages. ENIGMA is also a discussion forum and we welcome comments about the newsletter. If you are interested in writing a feature please contact us at the mailing address.

Acknowledgements

Information in ENIGMA may be reproduced, but please mention ENIGMA and if possible the originator of the article, we would appreciate any cuttings in which ENIGMA is mentioned.

NEXT ISSUE... We aim to publish the next issue of ENIGMA in mid - January 1998.

Contributions would be appreciated by FRIDAY 28th NOVEMBER 1997.

ENIGMA WANTS TO HEAR FROM YOU (DON'T BE A SLEEPER)!

COVER ISSUE 13

Intelligence Training Centre.
(Anon).

VOICE STATION NEWS AND LATEST LISTENING - Welcome to issue 13 and thank you for all your contributions logs, clippings & news.

ALL TIMES ARE UTC - ALL IDs ARE 1997 REPORTS - FREQUENCIES ARE IN kHz.

ENGLISH LANGUAGE STATIONS (Other active stations: // direct equivalent / family member)

E1) READY READY - Mode AM //M17

Transmissions repeat on two frequencies at 20 minute intervals.

A different cycle period is in use for different IDs - IDs are regular and operate on a week of month basis. We have included summer & winter information where known. IDs not given due to lack of monitoring.

MONDAY		TUESDAY		WEDNESDAY	
WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER
20.00	4740	19.00	4740	23.00	5235
20.20	3410	19.20	3910	23.20	4740
20.40	3910	19.40	3410	23.40	4460
				22.00	6930
				22.20	6675
				22.40	5695

MONDAY		WEDNESDAY		SATURDAY	
WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER
21.30	4740	19.00	4740	21.30	4740
21.50	4460	19.20	3910	21.50	4460
22.10	4270	19.40	3410	22.10	4270
20.30	6290	18.00	4740		?
20.50	5865	18.20	3910		
		18.40	3410		

E3) LINCOLNSHIRE POACHER - Mode USB //E4

For full details please see part 1 of our special feature in this issue.

E4) CHERRY RIPE - Mode USB //E3

Transmissions appear to be MON to FRI only at time of writing, recent events in Asia may result in extra traffic from this station.

MON-FRI	10.00	11.00	12.00	13.00	14.00	21.00	22.00	23.00
	17499	14469	13866	13866	11570	9263	9263	17499
	14871	13866	11570	11570	8320	?????	?????	20474
	13866	9263	8320	7484	?????	?????	?????	?????

M16 will be pleased with reports from Japan and South Korea which inform us at ENIGMA that the signal is very strong.

Transmissions follow Lincolnshire Poacher format starting on the hour for 45 minutes.

Unconfirmed frequencies included; 13440 15616 & 16104. Frequencies previously used include; 4768 18684 19844 & 23411 all of which may be worth trying at any time. Special thanks to Dave in South Korea.

COVER - Front cover of a US Intelligence agent's training guide on message composition (source anonymous)

E5) COUNTING STATIONS - Mode AM (some now USB) //V5

Still very active in English language. Signals in Western Europe are generally weak at present although reports from Greece indicate better reception. Some transmissions are now in USB. Please see part 1 of our feature in this issue.

Following based on reports received since last issue. Special thanks to Peter in SW. Some logs are from USA. Schedules are short lived and prone to sudden changes. Will move to lower frequencies for Winter months.

// Frequencies shown where known. (*) Not same message.

MON 01.00 4645 *	WED 05.00 7473	FRI 15.00 10597
MON 01.00 4670 *	WED 12.00 10597//7600	FRI 17.00 13450//12197
MON 07.00 12175//10191	WED 15.00 9274// 7600	FRI 18.00 14448//12197
MON 11.00 16086//10597	WED 16.00 10529//9070	FRI 20.00 12197//10527
MON 17.00 12197//11491	WED 17.00 13874//11491	FRI 1900 8143
MON 18.00 12175//10727	WED 19.00 13450//12197	SAT 05.00 9090//9074
MON 20.00 11564//8085	WED 20.00 11564//8085	SAT 07.00 12175//10191
	WED 21.00 11526	SAT 11.00 10597
TUE 01.00 4670 *		SAT 12.00 10223
TUE 01.00 4645 *	THU 17.00 13450//12197	SAT 13.00 10529
TUE 02.00 7425//7709*	THU 18.00 14364//12175	SAT 16.00 10529
TUE 02.00 7645 *	THU 18.00 14448//12197	SAT 17.00 13450
TUE 13.00 11491	THU 20.00 11564//8085	SAT 18.00 12175//10727
TUE 15.00 11491	THU 21.00 8030 //7585*	SAT 19.00 13450//12197
TUE 17.00 11491//13874	THU 21.00 8143	* SAT 19.00 8125//6891
TUE 19.00 13444//12175		SAT 21.00 12175//11072
TUE 21.00 12175//11072	More transmissions moving to USB mode.	
SUN 01.00 4670 *	SUN 15.00 8014	SUN 19.00 12175//13444
SUN 01.00 4645 *	SUN 16.00 9070	SUN 20.00 12197//10527
SUN 07.00 12175//10191	SUN 17.00 13450//12197	SUN 21.00 12150//11526
SUN 12.00 10597	SUN 18.00 14364//12175	

Transmissions noted at 09.00 TUE 6967 started before 09.00 ending at 09.15 with 056 call followed by repeat of call at 09.27 & count 196 at 09.37. THU at 08.00 12198 USB started before 08.00 ending at 08.15.

E6 & E7) ENGLISH MEN, 00000' & '000 000', Mode AM //S6 & S7 Families

Traffic levels continue to be high. Due to frequency usage it is not practical to reproduce all logs. IDs noted, however, are listed below. See G6 & G7 for further details.

E6) 105 194 204 206 274 295 320 394 406 476 614 629 695 715 738 817
851 915 948

E7) 172 825 919

E8) MAGNETIC FIELDS Mode AM //V8

MON 18.00 SUMMER or 19.00 WINTER on 6645
SAT 08.20 SUMMER or 09.20 WINTER on 11290

John in Darby tells us that there seem to be two transmissions each month. The first one is on the first Saturday of the month and the second is on the third Saturday unless it is a month with four Saturdays. In this case, the transmission is on the last Saturday of the month. I wonder if this applies to the Monday schedule! Comments and observations please.

Modulation level is too low and, therefore despite a strong signal, the reception is not always readable. See also sister station V8.

E10) PHONETIC ALPHABET -NATO Style. Mode AM/

Still very active indeed.

All information shown below is based on reports received since last issue. Some frequencies share call-signs.

2270 JSR 2626 FTJ 2743 ULX 2844 YHF 2953 VLB 3090 CIO 3150 PCD
3270 KPA 3417 ART 3640 VLB 3840 YHF 4165 CIO 4270 PCD 4360 CIO
4463 FTJ 4604 ROV 4665 VLB 4780 KPA 4880 ULX 5091 JSR 5170 KZI
5230 SYN 5339 TMS 5437 ART 5530 MIW 5630 SYN 5820 YHF 6370 KPA
6500 PCD 6598 NDP 6658 CIO 6745 MIW 6840 KZI 7445 MIW 7605 SYN
7918 YHF 8464 SYN 8641 KPA 9130 KZI

10352 SYN 10970 MIW 11565 KZI 12950 SYN 13533 KZI 14750 SYN
15980 KZI 17170 SYN 17410 KZI 19715 KZI

New call ROV has been active on 4604 - for further E10 details see part 2 of our feature in this issue. Also Simon Mason column for recent message strings. Rob who was on holiday in Greece reported consistent good signals at all hours - both voice types.

E11) "OBLIQUE" Mode AM/SSB //S12//G11//M3/M20

No reports received but probably about - most transmissions are of 5 minutes duration - messages rare.

All reports of this family very welcome.

E12 N N N Mode AM /M2

No changes to this station. Still active with excellent signal in Europe at following schedule.

MON 04.00 4573 WED 04.00 4573 THU 04.00 5821 FRI 04.00 4573
MON 21.00 4644 WED 21.00 4644 THU 20.00 5821 FRI 21.00 4644

E15 PHONETIC ALPHABET - pre NATO style Mode AM/SSB

11.00	18000	BEC	17.00	14000	FYS	All listed have been
12.00	17503	WSU	17.30	5834	MSA	heard since last
12.30	11170	MSA	18.00	5834	USP	issue - reception is
13.00	11000	BEC	19.00	4130	SAR	poor in U.K.
14.00	14000	FYP	20.00	5530	NAS	
16.30	6715	NAS	21.00	4130	MSA	

I would be interested in any traffic analysis from this station - which is reported to be strong around Greece.

E16) TWO LETTER (ENGLISH) Mode SSB //G16

Stations AU - Alpha Uniform has different habits to other stations in this set up. Noted recently on a Tuesday afternoon using:

4888//4821	13.00	Message for 865	15.00	Messages for 095 & 463
	13.30	" " ???	15.30	" " 385 & 554
	14.00	" " 194	Heard July 31st at 15.00 & 15.30	
	14.30	" " 720	messages for 691/865 - 70 Groups	

6370 Also noted in use. again using 4821//4888 each ID
MD - Mike Delta is still active along with new call FR - Foxtrot
Romeo. More detailed information in Simon Mason's column - this issue.

E17 ENGLISH LADY, '00000' ENDING, Mode AM, Probably S6 family.

Not easy to find, Heard at the strangest of times. Reports received since last issue.

WED 03.30	Freq unknown	calling 501	THU 20.00	10710	calling 674
SUN 03.15	9195	calling 308			

Reports always say good signal heard in North America; this may suggest that the signal is relayed by the C.I.S. via Cuba to English speaking N.A. agents.

E18) RE-ACTIVATION (SIMON MASON'S "FIFE FREE") MODE LSB //G22//S4//M13
'EDNA SEDNITZER' ENGLISH VERSION

This station was last noted in the English language on 8072 kHz at 20.00 on 3 September, 1989. It has a German voice arm G22 and an unknown Slavic language arm S4 "Edna Sednitzer", neither of which have been heard for some years. The station is operated by the agency behind the much larger and more active 'slow Morse' station M13.

It may be an educated guess that most of its agents have learnt Morse but a few still rely on voice transmissions. Even more worrying is the use of English which suggests that the agents may well be in the U.K.

The format consists of the a 5 minute repeated ID 'Number' 3 Figure
'Group' e.g. 017

Message is sent in single 5f groups. Repeat sequence consists of call sent four times and number & group given again. Message is sent again in single 5f groups ending (pause) '000'.

The 'Number' used is an incremental message identifier, so moves up with each new message. It probably changes each month, as with M13.

Its less than pure LSB mode and slow delivery make the station both difficult to find and difficult to resolve. At the end of most transmissions it is worth staying tuned - what sounds like a hand-set being replaced can be heard. It is almost as if the recorded messages are sent over a radio-telephone circuit!

So far transmissions we have found are;

2nd WED	of the month	8025	21.00	calling 307
3rd THU	of the month	7455	05.00	calling 718 *
2nd THU	of the month	8025	21.00	calling 307 (repeat of WED)
3rd FRI	of the month	7575	06.00	calling 718

* This was noted with a garbed delivery and wrong ser.No (the first transmission noted may have been a test).

The frequencies used will change each new month along with the message. Thanks to Mike in Kent for spotting the 307 transmissions.

SEE ALSO M13

GERMAN LANGUAGE

G2) SWEDISH RHAPSODY Mode AM/SSB //M4

The details below represent recent logs only and is not a complete schedule. THE SCHEDULE STARTS ON THE 1st SATURDAY OF EACH MONTH

DAY	TIME	FREQUENCY	A	WEEK NUMBERS (5 Continues into next month)				
				1	2	3	4	5
SAT	09.00	8188 SSB		*3	*3	*3		
SAT	12.00	6507 SSB		*3			*3	
SAT	22.00	3825 SSB		*3	*3			
SAT	22.30	3825 SSB		*3	*3			
SUN	00.00	5748			*			
SUN	00.30	5340		*				
SUN	09.00	7250 *AM						*
SUN	10.00	8188 SSB		*3	*3	*3	*3	
SUN	11.00	8188 SSB		*3		*3	*3	
SUN	12.00	6507 SSB		*3	*3	*3	*3	*3
SUN	20.00	3823 SSB		*3	*3	*3	*3	
SUN	21.00	5340					*1	
SUN	21.30	4832 AM	A	*1		*1		
SUN	22.00	3823 SSB		*3				
SUN	22.30	3823 SSB		*3				
MON	13.00	6200 AM	A	*1		*1		
MON	17.00	5748 AM	A	*1		*1		
MON	17.30	5748 AM	A	*1		*1		
MON	19.00	5340			*3			
MON	20.00	5340 MCW	M 4		*1	*1		
MON	22.00	5748 AM	A	*1				
MON	22.00	6507 AM	A			*1		
MON	22.30	5748 AM	A	*1		*1		
MON	23.00	5748 AM	A	*1		*1		
MON	23.30	5748 AM	A	*1		*1		
TUE	18.00	4195 MCW	M4	*1		*1		
TUE	20.00	4195 MCW	M4	*1	*1			
TUE	21.00	3823 MCW	M4	*1	*1			
TUE	23.00	3825 SSB		*3	*3	*3		
WED	09.00	4195 MCW	M4	*1				
WED	13.00	6200 AM	A	*1		*1		
WED	17.00	5748 AM	A	*1		*1		
WED	17.30	5748 AM	A	*1		*1		
WED	20.00	5340 AM				*	*	
WED	22.00	5748 AM	A	*1		*1		
WED	22.30	5748 AM	A	*1		*1		
WED	23.00	5748 AM	A	*1		*1		
WED	23.30	5748 AM	A	*1		*1		
THU	18.00	4195 SSB				*3		
THU	19.00	5340 MCW	M 4			*1		
THU	20.00	5340 AM		*3	*3	*3		
THU	21.00	5340 AM		*3	*3	*3		
THU	22.00	5340 AM		*3	*3	*3		
THU	23.00	3825 SSB					*	

More transmissions now in SSB. Re-introduction of 8507 kHz. Thanks to Phil for the information concerning 7250 kHz. See WK 5 SUN.

Important note :

Transmissions currently on 7314 will move to 6200 for winter.
Transmissions currently on 6200 will move to 5748 for winter.

Please send in all logs of this station. Remember Week 1 starts on the first Saturday of each month. Note also that no transmissions take place on Friday. We still need a dedicated monitor for this station to conduct systematic monitoring and work on the stations habits.

We are still carrying out investigations into the UUUU LOLO-MCW marker. Further information next issue.

G4) 3-NOTE ODDITY - Mode AM //M29 (1 Hour later in winter).

SUNDAY - APRIL	20.05	3936	MAY	4245	JUNE	4376	JULY	3930	AUG	3934 *
SUNDAY - APRIL	20.35	3836	MAY	4145	JUNE	4276	JULY	3830		
GROUPS -	23		25		30		25		AUG	3834

Also noted in JULY at 13.30 each MON & WED on 5223. See also M29-VDE.

G6) GERMAN LADY '00000' ENDING Mode AM//S6 Family

Sends all messages using PAIRED groups. Uses regular time slots but seemingly random frequencies. Messages are repeated on a different frequency following first airing. Schedule is ID-specific & well-organised.

MON 19.00 & 20.00 Frequencies range between 4 Mhz & 11 Mhz.
TUE 19.00 & 20.00
SUN 07.00 & ?
SUN 19.00 & 20.00 Id's include 458 & 894

G7) GERMAN LADY '000 000 ENDE' ENDING Mode AM //S7 Family

Sends all messages using SINGLE groups, uses 3F or 4F decode key. Each transmission is repeated on 2 further frequencies. Nil messages are repeated only once. Frequencies and ID's are changed each month on some networks.

Recent logs include:

THU 06.30 (05.30 summ) FRI 06.00 (05.00 summ) SAT 09.00 (08.00 Summ)
THU 19.00 (18.00 summ) FRI 19.00 (18.00 summ)

The FRI transmission is the same message as the SAT one but with different ID.

A once monthly transmission at 08.00 (07.00 in summer) has also been noted on the 2nd or 3rd SUN of each month.

ID s heard over last six months include: 052 118 124 146 164 218 224 241 306 311 419 421 464 577 621 & 696.

G11) STRICH Mode AM //K11//S12//M3/M20

Regular slots, but changes frequency without warning.

*These msgs also sent Sun 0405 & 0435 Aug freqs: 3819 & 3919 (27 Groups)

WEEKLY TUE 21.00 3823 4015 4780 or 5050 Calling 752
WEEKLY WED 08.00 6430 or 7840 Calling 752

We had one report of '697' at 23.00 but the day/date was not given. Special ID '121' has again been active - this time in German. The ID '121' usually reserved for Morse (M3). Noted possibly daily for a short period at 05.00 on 7790, the ID differs in that it always sends a message and the messages are of widely variable group counts. Different message each time.

G16) GERMAN TWO LETTER STATIONS Mode SSB/AM //E16

Please see "Simon Mason Writes" for all the latest news on this station.

GK is the most active call and can be heard at 19/19.30 20/20.30 & 21/21.30 depending on the day of the week.

Frequencies are selected from the following list : 2690 2707 2745
3228 3262 4543 4594 4821 4888 5015 5182 5732 5770 6370 8765 6853 7404
7532 7661 7752 7858 8063 8173 9040 9325 9450

10170 10460 10500 10740 11108 11545 11617 12092 12210 12314 13362
13752 13775 13890 14622 14945 15610 16055 16620 16414 17430 18195
18575 19295 19755 20240 20350 20675 22885

Callsigns active in German are: GK WL
Callsigns active in English are: AU MD FR DL

A recent press report by Deborah Colclutt: "Kremlin spies break Cold War record" gave a direct reference to number stations. Writing about the latest German government report - 'Germany attracts more agents than any other European country and experts estimate that the number of Russian spies probably stretches into thousands.

Previously they were mainly engaged in observing and monitoring military developments, now they are interested in German telecommunications technology and the computers we use,' a spokesman said. Other fields of interest are NATO's eastward expansion, Bonn's Eastern-bloc policy and its role in the Middle East peace process.

The report claims that Moscow is the centre of the spying operation and that all agents are recruited, rigorously trained, dispatched and monitored from there. German intelligence officers believe that personal contact is kept to a minimum and that the moles receive their information and orders through coded shortwave radio messages.

But in Moscow it's a different story, the Russians are trying to encourage defections and have set up a special telephone line. Will Stewart reports in The Express newspaper. Russians recruited by rival spy organisations would be pardoned and allowed to keep their foreign earnings if they agree in future to pass false information to their handlers.

Calls to the hotline - Moscow 224 0035 (don't try this at home) were jammed on its first day of operation as espionage turned into farce. The woman taking the calls admitted most were from 'mentally ill people'.

Other callers were journalists, she said, adding that no-one had called her from MI6 and wished to change sides.

SLAVIC LANGUAGES

S6) & S7) RUSSIAN MEN, '00000' & '000 000' ENDING, Mode AM
See G6 & G7 for further details.

S6) Family : E6//E17?//G6//V6//M14/S25
S7) Family : E7//G7//V7//M12

No major changes. Still very active on a wide range of frequencies. Schedules can be very protracted, tailored to requirements of individual addressees and frequency usage and ID s prone to sudden change.

S6) ID s noted: 382 396 482 604 796 826 831 895
S7) ID s noted: 108 131 147 638 813 864

S9) POLISH COUNTING, Mode AM - RE-ACTIVATION

This has not been heard for some time. Consists of 'live' Polish Counting Man.

TUE 04.20 to 04.25 4828 'Raz' = 1 (with phrase)
WED 05.30 to 05.35 4798 'Raz' = 1 (with phrase)

S10C) CZECH LADY - Mode AM - RE-ACTIVATION

This station which is a variant of S10, the old (incorrectly- titled) Bulgarian Betty has lived on in voice as the S17 Czech Lady 'control' since she ceased sending full messages in late 1990.

The station has been re-activated by its masters and 'Betty' lives again. First noted on June 11th.

WEEKLY - TUE 06.30 4958 'calls 555' for 5 minutes interspersed
- WED 06.30 4958 with the agent ID numbers and group counts of the two messages to follow.

IDs heard so far 109 247 541 & 561. Messages vary in length from a low of 12 to a high of 49 groups noted to date.

S12) 'CHERTA' Mode AM //G11//E11//M3/M20

Still active but like all family members is prone to sudden frequency changes.

Try 1st & 3rd WED of Month 21.00 4015 or 5180 Call 971
Try 1st MON of Month 21.00 3823 or 4465 Call 755
Sent 138 groups on 19.3 - an unusually high GC. A further message sent on 18.6 (GC missed). Transmissions may repeat in the morning.

S13 & S14) RUSSIAN COUNTING MEN/WOMEN Mode AM/SSB

S13) No reports received - transmissions often only 2 minutes duration.

S14) Still a few around. Consists of a repeating loop tape which goes on for hours on end.

Recent logs have included:

SUN 02.00 4064 'Klever 75' MON 19.00 4064 'Klever 75'

S16) OLX Mode SSB, Morse Call Up, and //M6 OLX

Still operating 23 hours per day - ****SEE PAGE 27****

Transmissions start at 5 minutes to each hour for about 20-40 minutes.
About 50/50 Morse and voice messages.

Daily	23.00 - 04.00	9320 //11416 // 5301
	05.00 - 16.00	18303 //14977 // 8142
	17.00 - 21.00	11416 // 8320 // 5301
	22.00 - 22.59	NO TRANSMISSION (Time for a glass of beer)

S17) CZECH LADY "CONTROL" Mode AM

Again no changes to this station. See article on Czech stations in this issue.

Daily 13.55 to 14.02 4485//5027 - single 5F 'message'.

S19) CZECH MAN 'control'; Mode AM See article on Czech stations.

One reported received, sorry we do not have exact frequency.

MON 21.00 4.6 MHz +/- Ended 000 Noted in Greece 2.6.97

S21) RUSSIAN LADY, Mode AM, //M45/M17/M50?

Still active with regular transmissions. Schedule very stable.

MON	19.45	5290	Calling 491	THU	17.40	5740	Calling 342
TUE	17.40	5740	Calling 342	THU	19.45	5290	Calling 491
			And possibly still:	THU	20.45	3160	Calling 402

See M45 for more detailed information.

S25) RUSSIAN MAN "CONTROL", Mode AM, /S6 Family

Daily at 08.00 on 14890 ID always 615.
08.20 on 11270*

*May not move here if 08.00 message is non-standard. i.e. S25A/B.
11270 may or may not be used thereafter.

S27)/M10C Mode USB, NEW DESIGNATION - NOT PREVIOUSLY REPORTED

TUE	07.00 - 07.46	8.7.97	WED	07.00	5248	25.6.97
AND	08.30 - 08.50	5258				

Yet another Czech station, using yet another voice. It is an entirely new station to ENIGMA. It is not a typical 'text' station as it only send single group messages, however, it is very complex. within the same transmission two distinct formats are used, one been designated S27A. Numerous encrypted 5 figure IDs are used, as also are significant 2 figure decode keys. Group counts, also sent are non-functioning within the transmission. Triplets, silent periods and repeated IDs also feature in this highly interesting station. It has several similarities with M10C and is of the same family. Further details in our next issue. See also Morse Station News.

OTHER LANGUAGES

V2) SPANISH LADY 2 or 3 'FINALS' Mode AM //M8

Active particularly during period 03.00 to 09.00. - Primarily serving the Americas.

Not so busy in the last few months. No transmissions noted TUE or FRI.

MON	02.00	8186	WED	02.00	7890	THU	04.00	7485
MON	03.00	6826 *	WED	03.00	4479	THU	05.00	6797
MON	03.00	6855 *	WED	03.00	6826	THU	06.00	9269
MON	04.00	5177//6797	WED	05.00	7726 *			
MON	04.00	6768	WED	05.00	9153 *	SAT	00.00	10129
MON	05.00	8012	WED	06.00	6786	SAT	02.00	4028
MON	06.00	6795	(*) Not same message.					
SUN	02.00	5762	SUN	05.00	7726	SUN	06.00	6786
						SUN	06.00	4028

Recently several reports stated that transmissions have ended with no 'Finals'!

V5A) COUNTING - SPANISH 4F

Just one report received.

POSSIBLY DAILY 03.00 6802 For ID 790

V6) SPANISH LADY '00000' ENDING, Mode AM //S6 Family

Part of the S6 Family. See G6 for further details.

Schedules frequently change, but gives a strong signal in Europe.

FRI 20.00 March 8060 May 12210

IDs heard: 685 & 834.

V7) SPANISH MAN, ENDS '000 000', Mode AM //S7 Family

See G7 for further details. Quite busy at present. Transmissions noted

TUE 06.00 Frequencies sometimes used for 1 month then changed. All
THU 06.00 transmissions repeat messages on two further frequencies.
FRI 20.00 Nil messages are only repeated on one further frequency.

IDs noted: 212 273 514 654 749 891 893

V8) EASTERN MUSIC STATION Mode AM /E9

This station is related to E9 the 'Magnetic Fields' outfit.
The language used by V8 is Arabic, and uses mixed single digits and multiple numbers.

Single Numbers in Arabic are - (1) Wahid (2) Ethnain (3) Thalatha
(4) Arba-a (5) Khamsah (6) Sittah (7) Sab-ah (8) Thamaniyah
(9) Tes-ah (0) ?

Transmissions seem to take place on the first FRI and first SAT of the month. Noted on April 5th and May 3rd. See also details on E9.

More tapes sent at double speed making the whole transmission impossible to copy unless you can write very fast!

1st or 2nd FRI 08.20 11290 +/- 5kHz Try 08.20 or 09.20
1st or 2nd SAT 18.00 6645 +/- 5kHz Try 18.00 or 19.00

V13) NEW STAR BROADCASTING Mode AM

The only New Star Broadcasting frequency which seems to regularly reach Europe with a readable signal is 8300 which can be heard in the afternoon and evenings.

Heard with a weak signal in the U.K. at 15.00 & 16.00 8300

Other frequencies received - 9725 11430 13750 & 15388. See Simon Mason's column in this issue for some interesting news about New Star.

V15 NORTH KOREAN - VIA RADIO PYONGYANG Mode AM

Heard in South Korea - 3250 15.00 sending messages for 6119/26 groups
3232/53 groups
7115/72 groups

Interesting 4F agent ID numbers!

I have also seen an E-mail message from Glen in Canberra, Australia which mentions a possible North Korean station on 6214 blocking out 6215 maritime distress and safety channel.

This is reported to be operating daily starting on the hour at 13.00 for about 10 minutes then again at 14.15 and 16.00 for 10 minutes with music and numbers. This is reported by Mike in Kent to be 'just' readable in the UK. Reports/comments welcome.

XPH HIGH PITCH POLYTONE TRANSMISSIONS - Mode AM/S7 family.

Still some regular time slots in use. Changes from UTC winter time back to BST for summer. Frequencies are changed most months.

Two regular transmissions have been noted although others do exist.

TUESDAY AND FRIDAY EACH WEEK. * 20.00 SUMMER 21.00 WINTER

JAN	21.00	5754	FEB	21.00	5754	MAR	21.00	6959	APR	*20.00	10423
	21.20	5254		21.20	5254		21.20	5859		20.20	8123
	21.40	4454		21.40	4454		21.40	5259		20.40	7523
MAY	20.00	12219	JUN	20.00	13442	JUL	20.00	12219	AUG	20.00	10830
	20.20	11019		20.20	11542		20.20	11019			
	20.40	9819		20.40	10242		20.40	9919			
SEP			OCT			NOV	21.00	5431	DEC	21.00	5754
							21.20	5131		21.20	5254
							21.40	4031		21.40	4454

Also noted on WED at 06.00 06.20 06.40 12120 -

X8) The 8 Tone repeating stations are still very active. No schedule has ever been established. Some transmissions have been known to repeat within the hour.

It is well worth staying on the frequency once the 6 tone AM signal ends. On odd occasions a short string of Morse is sent followed by an FSK message. This sometimes occurs about 30 seconds after the 6 tone signal leaves the air.

Several reports have picked up on a story which mentions a facility for agent communications - or a Number station to you and I!

"According to reports in Popular Communications (RD Baker) and Jane's Defence Weekly - President Bill Clinton is still under pressure by congress to force the Russian signals intelligence (SIGINT) facility at Lourdes, Cuba (near Havana), to be closed. Russia's SIGINT effort at Lourdes is carried out by Russian military intelligence (GRU) and the Federal Agency for Government Communications (FAPSI). The FAPSI evolved in the early 1990s from the former KGB's SIGINT service.

The Russian Foreign Intelligence Service (SVR) also has a communications centre at the facility for its agent network in North and South America, according to testimony before the U.S. Senate's Select Committee On Intelligence in 1996 about Lourdes. The facility is the largest Russian SIGINT site abroad".

Details about Lourdes also appeared in a Sunday Times Newspaper report and according to United States Department of State Publication 8347 - Background Notes Series, the Lourdes facility was established in the 1960s after Cuban-Soviet ties led to the Cuban Missile Crisis. The Lourdes facility is indeed known as where numbers transmissions in several modes originate, these been transmitted from a remote site nearby.

And finally, MI5 is to release its secret files (but don't get too excited). Archives from 1909 to 1918 will be made public. The names of MI5 officers operating during the First World War will not be removed but the names of agents employed by MI5 will be excised.

In other moves to open up the service, Stephen Lander, the current MI5 Director-General is planning to publish a telephone number (no, not the Government Communications Bureau one) for MI5 to give people an opportunity to ring if they have information or wish to offer help.

Information about MI5 already in the public domain is to be placed on the Internet.

Changes to the ENIGMA Check-list. For Morse changes see Morse News.
(incomplete)

Please update your station check-list with the following.

E18)	'Edna Sednitzer' EE version	RE-ACTIVATED
S2)	Drums & Trumpets	NO LONGER ACTIVE
S8)	YT	NO LONGER ACTIVE
S9)	Polish Counting	?RE-ACTIVATED (Always infrequent)
S10)	Czech Lady I (C variant)	RE-ACTIVATED
S18)/19	Czech Man ?RE-ACTIVATED -	DESIGNATION NOT YET DETERMINED
S27)	Czech Lady II	NEW DESIGNATION

Dormant/extinct stations noted as such after a year's absence or more.

MORSE STATION NEWS

By M.G.

Morse activity levels are still very high and far exceed voice station activity. Those of you without knowledge of Morse, who trawl the bands only for voice stations don't know what you're missing! Learning Morse isn't as daunting as it may seem, especially in the field of numbers stations, and anyone with a serious interest in these stations needs to take Morse stations into account in order to have a proper understanding of the subject. A full understanding of many voice stations isn't possible without taking account of their sister Morse stations - they are inter-related and cannot be treated in isolation. In the next issue we will include a feature on identifying Morse stations aimed at those of you who are missing out on 80%+ of numbers activity. It will include basic Morse code techniques, starting with how to recognise the numbers, 0 to 9 - an essential requirement! Professional intelligence agents, 'sleepers' and 'illegals' with radio communication roles are generally all proficient at Morse, and are often required to send messages back - never sent in voice modes for obvious reasons. Voice stations are one-way only, and often send messages to dissident/exile groups, untrained in radio technique. It is worth remembering this when considering the plethora of Morse stations still in operation.

Now for the news, and, as usual, there's an awful lot of it!

(All IDs listed have been active from at least April onwards)

M1 Included elsewhere in this issue is the second list of EOM (end of month) transmissions, this one covering the period, August 96 to July 97. In the last issue I mentioned 'an unprecedented 57 group message'; this has now been beaten three times over, for a 'B' network transmission (931) on Th 3.7 (2030:5737) sent a phenomenal 173 groups, after already beating the record on the previous Thursday with 107 groups. The 173 GC msg had been compiled on 2nd July, a day before transmission, and the 107 GC msg on 26th May. Before then 931 had been sending standard 40 and 50 GCs. The central zero in the final group of standard M1 messages can now be explained - this space is used when GCs exceed 99. In the above two examples this group is 02172 and 26106. This 931 transmission repeats at 2100 on Fridays on 5330 (formerly 5751), but uses a different ID - 871 - in the same way that M45 and S21 use different IDs for the same messages (150 & 342) further confirming the same hand at work. Why did 871 change its freq while 931 made no move? These transmissions are quite lengthy (around 40 mins) and are keyed more slowly than the average M1. I have not yet confirmed whether the same operator sends these long transmissions out twice weekly live each time, or whether the hand-keying has been recorded onto tape. The 173

GC message is still being sent (31.7) and if two more are sent next week we need to look out for any slight differences in keying.

Have the end-of-month trs finished? All six EoM trs for June and July sent standard M1 formats. This has happened before, but not for well over a year, and never have so many been missed. We await August's dates with trepidation!

Another newsworthy observation concerns those peculiar final groups. Why include the GC-1 as the last three digits, when the GC is already included four times in the transmission? Perhaps the answer lies in what I once assumed to be merely occasional errors. For example, a 41 group 'B' network message (Sun 13.7 1915:5238 'to' ID 254) sent a last group of 07039 where the final digits should have been 040. As errors within a message are assiduously corrected, I've yet to hear a last group 'error' corrected. This would tend to indicate that such errors are not really errors at all, and that, in the above example GC-2 is significant. If not, then the GC element within these groups is pointless.

Staying on the subject of this final group, the 'A' network transmissions on 17.7 both gave 13th July as dates of origin i.e. the previous Sunday, yet the intervening Tuesday transmissions both originated on that same Tuesday. This is the first time that 'A' network messages have been compiled on a day previous to their transmission. Incidentally, the usual operators must have been on holiday on this Thursday, for the keying was atrocious! Most likely, an M50 operator was asked to stand in.

Apart from the usual 025 'A' network ID (which will change to 463 on September 2nd) active 'B' network IDs include: 053 254 719 871/931. At least two others exist at present.

M2 As schedule changes are so rare with this station it is easy to overlook them when they do occur. There have been two changes, which may have taken place some time ago. The 181 schedule has moved from its long-established (since 1970s) Monday evening slots to Saturdays: 1200 on 5737, 1300 on 5821. Also, a new schedule number has been added: 626 operates Monday to Friday at 1300 on 4573. This is quite a major departure in the habits of this rather conservative station, for it had never previously appeared on Fridays, nor did any schedule number run more than three transmissions per week. Errors are unknown. Apart from these changes all else remains the same.

M3 Usual behaviour patterns and activity levels. Active IDs since April : 010 011 012 013 016 017 018 019 - 031(new) 035 040 041 042 043 044 - 121 - 183(lost after Aug 95) - 214 216(new) - 496(still operating MCW & German G11) 503 - 552 - 741 742(new) 743 - 752(G) 755(S) - 971(S) 976. It is

(hyphens separate clusters)

interesting that the 01x and 04x clusters all remain below 6MHz and favour 0630-0930 period. The other clusters have always been more adventurous. At present the only IDs operating above 6MHz and up to 1300 are: 183 214 216 496 503 552 741 742 743 752 & 976 - using 6330 6430 6640 7444 7580 7650 7790 7840 8033 9950 & 10720. The other active freqs include: 4015 4780 5090 5120 5180 5360 5365 5520 5550 5624 5830. All the usual freqs are worth trying. Freqs and IDs are liable to reactivate at any time. ID 552 used the M3A format (111) on 27.6 & 4.7 reverting back to normal the following week. This ID is prone to 111s & 333s; I've only caught it sending a message once - on 11.12.95 with a very high GC of 149. For the rest of the time it communicates in this minimal fashion. With few exceptions M3 GCs stay within the 50s, the only ones since March being 017 (27.3 0800:5624) with 151 (at 0830 019/00 came up on 5365 while 017 was still sending) and 018 (10.4 0730:5550) with, unusually, another 151 groups. The messages could well have been the same, but if so, they were encrypted using different keys. Until recently the 'special' ID 121 has used Morse only, however, it now also uses German. (see G11) 496 is still active in both MCW and German.

M4 Probably no change. See G2 for most of these.

M6 (OLX) No change - same schedule and IDs - as expected. *

M7 Quite elusive. No significant change in activity & habits. Logs are inadequate and more work needs doing to sort this station out. IDs, being only sent three times are hard to collate. Active IDs where known are: 078 351 701 765 785 803 844 & 875. 875 is a special operation ID - see M10 for details of this. Thanks to 'J' (Cheltenham) for confirming my suspicion that M7 was intended for unattended recording equipment. Actually, it is a less sophisticated, but equally effective alternative to polytone (XP) as used by the Russians. The big question is: Why do these few Czech 'agents' require this facility? One can only assume that their daily routines are unpredictable, and so they are unable to guarantee to be free when scheduled transmissions take place. Just to be on the safe side, some M7 IDs at least, send repeat transmissions. Another possible explanation, is that these agents are particularly vulnerable to discovery, where to be found with even a domestic SW radio may arouse too much suspicion for their liking. If they instal their radios and recorders at remote locations to their homes/apartments/hotel rooms, such as a nearby shady copse, deserted barn or empty house, they need only return at irregular convenient intervals to pick up tapes and replace batteries. Regular listening patterns could never be established by enemy surveillance activities.

M8 A noticeable decrease in activity has taken place. Only a few transmissions per week being logged in Britain. A similar

* OLX was having transmitter problems during the week ending 2nd Aug - for a while only one transmitter was functioning (9320kHz). By 3rd NO transmissions were running, and nothing has been heard since. (5.8 0900) Could this be due to flooding at the transmitting site?

decline can be seen with its sister station V2. From being unusually active it has become unusually quiet. Still using the 150/150/150BC triple message format. With very little information coming in to us from the Americas, it is difficult to be sure whether this decline is apparent or real - it may be due to poor propagation, although most signals are still fairly strong. Some of these trs come from the old Soviet site at Bauta.

M10 A lot to report this time. An unusual sequence of events took place between 23.4 and 27.5 where unscheduled transmissions with unusual 'circuit numbers', 'special' IDs and split messages featured. This was in addition to all the usual scheduled transmissions. Here are some samples of this special operation:

Wed 23.4 1400:5017 888-522/45,689/19; 522-91/20= , 522-49/25=
 , 689-13/19= (Note the split message to 522 of 20 & 25
 groups)
 Wed 14.5 0800:5038//4624 555:179-12/26=
 Thu 15.5 0730:5038//? 777:179/25; 179-28/14= , 179-53/11=
 Thu 15.5 0800:5038//4624 555:179-36/20=
 Thu 15.5 0830:5038//NF 222:228/16,179/20; 228-39/10= , 228-
 30/06 (a six group message!)= , 179-11/11,179-43/09=
 Thu 15.5 0900:5038//NF 333:179/28; 179-63/16= , 179-58/12=
 Mon 19.5 0700:5015//? 777:875/28,266/15; 875-37/15= , 875-
 12/13= , 266-66/15=
 Mon 19.5 0720:5015//? missed -52/16=
 Mon 19.5 0740:5015 MZ 'D' 875-81/30= 'U'
 Mon 19.5 0800:5015//? 888:875/59; -12/05 (five groups!)= ,
 -57/54= (5+54=59)
 Mon 19.5 0830:5015 M7 'R' 875-48/25= 'N'
 Tue 20.5 -0700:5015 M7 missed (0705)= 'F' (35 min silence)
 Tue 20.5 0740:5015 M7 'R' 875-36/30= 'N'
 Mon 26.5 0730:5038//? 333:179/30; -45/11= , -17/19=
 Mon 26.5 0800:5038//? 555:179-53/25=
 Mon 26.5 1100:5038//? 777:179/27,284/18; 179-48/11= , 179-
 54/16= , 284-39/18=
 Tue 27.5 0700:5038//? 444:179/30,254/13; 179-88/19= , 179-
 02/11= , 254-48/13=
 Tue 27.5 0730:5038//? 777:179/20; -51/10= , -52/10=
 Tue 27.5 0805:5006//? 333:763-21/21=
 Tue 27.5 1100:5038//? 111:179/15,394/10

What does all this mean? What can we glean at a first glance? With the exception of 666 & 999, all triplets feature in this sample, clearly disproving 'Langley Pierce's' so-called Circuit Number theory - which may have held true at that time, but even that is unlikely. They are certainly operational codes of some kind, though. The frequent changes of CN, ID and traffic over very short periods suggests an almost real-time, ongoing situation. (as with M1 EDM trs) The choice of IDs is also quite enlightening.

179 is an old 'special', only linked to these anomolous trs. e.g. way back in 1994 (16.5 1900:5521//?) it was associated with such a transmission: 333:179/13. It is never to be found operating within normal schedules. The same applies to all the other IDs above: 228 254 266 284 394 689 763 & 875. 763 has, however, been associated with 248, which may or may not be another candidate for this list. These two occurred in the same period in what could have been another anomolous tr : Wed 14.5 1940:5295//? 555:248-12/20,763-24/30. 875 is particularly interesting, as it's not only an M10 'special', but also used by that M7 that kept appearing. If we look at 19th May we see messages being sent to 875 by both M7 and M10 over a very short period. If we assume M7 cannot be immediately received by its recipient, it would imply that 875 refers to more than one individual; a group or cell operating with the same mission, but not at that time in communication with one another. This could explain that little anomaly. Another oddity is the 'F' tone sequence; a four element sequence has never been noted previously. (The letters given are not actual Morse letters but approximate to them, the dashes being disproportionately long.) The busiest ID seems to be 179. In the 15.5 sample it received seven messages within less than two hours! '179' must have been monitoring from perhaps 0720 to after 1100, at least on some of these days. Note also those unaccountable freq changes, especially that odd 0805 tr on 27.5 when it moved to 5006 from 5038 and then back to 5038 later! News has just come in that this operation is still with us - Tue22.7 1650 (rapid dashes R10 - back again!):5040//? 333:179/20,394/15; 179-04/10= , 179-05/10= , 394-10/15= Another split message for 179. Those DKs of 04 & 05 look a bit suspicious - compare these with 27.5 0730. Another big query is the tendency for these anomolous trs to so often include two messages for the same ID - where the call's GC is split into two later.

'Anomalous trs' are defined as those that: a) do not use 555 as CN, b) use 'special' IDs i.e. those not associated with regular schedules, c) those which use irregular scheduling patterns.

M10C This encrypted five figure ID variant (a direct equivalent of the old S10) is still operating, and was logged on Thu 10.7 1000:5704//? Unfortunately, the beginning was missed, but at least four messages were sent: -91/20, 64512-95/16, 02125-99/19, 95447-96/15. Note that all the DKs begin with 9, and that all the messages are short. This is significant as a variant of the newly-discovered Czech station S27 shares these characteristics in common. A schedule for M10C has not yet been established; there may not even be one.

M12 Habits closely follow those of all other S7 family members. Seems to be less active than usual. This family, and the other main Russian family (S6, M14 etc) both use ID-specific schedules. Schedules (and modes/language/Morse

speed) are 'tailored' to a particular recipient's requirements. M12 nearly always uses a 'following-on' repeat pattern, where a first repeat follows on after the initial transmission, but on a second freq. The second repeat follows on after the first, on a third freq. However, the 963 schedule every Friday at 1600 on 12132kHz sends its single repeat an hour later on the same freq. An even more unusual thing took place on 25.7: at 1600, 59 groups were sent with decode key of 186, yet at 1700, instead of the expected repeat, a different message of 148 groups was sent, along with a DK of 2806. In both cases the ID was the usual 963, so was this an error or not? Recent IDs include: 112 132 151 214(2 msgs on 24.7, both over 200 groups) 310(367 groups on 27.7) 362 418 425 434 445 537 571 658 721 749 785 895 918 & 963. More queer goings-on with ID 151 - on Sun 20.7 1900:11567kHz it sent a DK/GC of 792/66. This sounded familiar, so I trawled through earlier logs and found that an identical DK/GC and message was being sent in December last year, and into Jan '97, but this time the ID was 304. The time was an hour later at 2000, and the freq. much lower - 5066kHz - quite a wide seasonal range. Is an agent now receiving the same message that was being sent to a different agent over the New Year, or is this too naive an explanation?

521

M13 The big news this time concerns the return of M13's sister station, E18, showing that the agency now has a need to communicate with at least two non-Morse-trained 'agents' who speak English. Identifying and keeping track of E18 would not have been possible without a thorough knowledge of M13's habits. When I first logged the return of E18, then unknown to me, I compared its format with those of all known stations, and came up with M13 as the 'best fit'. I then extrapolated M13's scheduling pattern onto E18 to predict its next appearance and serial number - correctly. This is just one of many examples where Morse literacy has assisted in furthering our knowledge of voice stations; most voice and their Morse counterparts are interdependant. Those of you who make no attempt to learn Morse are not in a position to seriously study the habits of voice stations - agencies do not make this discrimination!

Having said in the past that M13 message serial numbers increase by one each month I've now discovered that that's not strictly correct. Most of them certainly do, but a few IDs send at least two messages per month causing a serial number to jump by 2 or 3 by the end of the month. So we cannot absolutely rely on the 'counting back' theory to determine the origin month of any particular ID - we must first establish that ID's habits, preferably over a few months. Activity is still quite high, but for some unaccountable reason I find that a special effort is needed to locate transmissions. (You can guarantee there'll be one - or two - somewhere at 2100 every night). Oddly, I have more success finding these on a cheap portable with a 4 inch analogue dial covering 7-22MHz,

and then checking its freq on the RA17! Active IDs - with recent SNs - include: 134-155, 175-193, 254-163, 272-190, 281-167, 284-154, 346-152, 378-189(new), 411-176, 417-153, 491:000-160, 522-156, 752-264, 823-154, 261-182.

On 15.5 when I logged the reappearance of E18, the 'garbled' transmission to 718 used the SN, 102, yet when I heard it the following day, the same ID was using SN 106. It had risen by four in two days, indicating four further messages had been sent - something which this family never does, so I can only assume that the 102 transmission was a test, playing a dummy message, or a 'garbled' re-run of a genuine previous message. ID 307 is behaving normally sending monthly messages - SN 114 will be sent in August.

M14/24 Habits closely follow those of all S6 family members. Less active over recent months. Recent IDs include: 147 168 392 485 541 571 633 642 675 695 743 786 906 & 972. This station recently beat its own GC record on 23.6, sending an incredible 431 groups - even at 38wpm this took 45min to send - an overall Numbers Station record. (18906)

M16 (BBY) Still following the same schedule as always. See article in this issue.

M17 Probably no change. Still as active as usual. Some high GCs lately - 40+ A record 79 groups were sent on 3.7 (66531)

M18 Still around changing its freq every so often. Not really worth listing in future as it never does anything apart from occasionally changing its freq. Last two: 3802, 4165kHz
but has moved again.

M20 Definately one of the M3 family. It has occurred a few times recently always on regular M3 freqs. Messages, so far, have never been sent. It may or may not act merely as some kind of status indicator without having a message role. This isn't easy to determine, as so many IDs (especially voice) seem to be sleepers, receiving messages rarely, if at all. As M20 has no ID, perhaps it's a general or emergency/warning call of some kind. We can but speculate!

M21 Still all over the place doing the usual.

M22 (4XZ) No changes noted although little monitoring is devoted to this one. Messages sent frequently throughout the day.

M23 Been very busy over recent months with all kinds of daily 'runs' using all kinds of disguise - none of them very imaginative, and all quite transparent. So much has been happening that a feature on this station is really necessary to first explain its habits, before we can go into its recent activity. M23 certainly holds the record for long-term 'active inactivity' and dedication to its cause: Two daily

schedules began - using the odd/even format - around mid-February this year, at 0800 & 1400, both on 8307//9285. They have been around ever since, not once having yet sent a single message. The odd-numbered 'ID', 579 being sent each time for ten minutes. One day this will change to something like 428 and the agents will fall out of their seats with shock, and madly reach for their notebooks and pencils! So will I, and so will our professional colleagues at CSO, unless, of course, the Brits are behind this oddity (!)! Another possibility is that this long run will suddenly come to an end without any messages being sent - it may serve as a daily "Hello, all's well!" and order an agent to "get out quick!" before the end of his tour of duty if things get too hot! It may finish with one single message of thanks/farewells. Like so much in the Numbers Station game we'll never know (nor will the professional monitoring agencies) but we can speculate and, in time, it will give us a clue. So keep listening daily, if you can, while it lasts! (still running in August). Something we may be able to determine is whether these two transmissions are being sent to the same agent/cell (or whatever), or to separate recipients; only patience will come up with the answer. This is the only 'text type' station which regularly keeps in touch with its 'agents' on a daily basis. Yet another new format has been active. This one uses a two figure call; two identical figures, such as 33 or 44 indicate a message to follow, whilst two different figures, such as 24 indicate no message. This station seems never able to settle down, and is hyperactive in its use of variants. The 00000 variant has also been very active.

M26 After comparing this station's habits with those of M34 I now realise that they are both variant formats of the same highly complex station. We may as well keep the same two ENIGMA reference numbers, although there are more than two formats. As before, M26 will refer to the 98 (95,97 etc) style, with long drawn out transmissions. M34 will refer to all other - non-98 - variant formats, including the only 'normal' one: 2fig IDs followed by conventional 5fig messages. It's not really worth discussing the recent activity of these stations at this stage. Schedules are unpredictable (so far, at least) and transmissions infrequent, but information is slowly being built up, and will be published at a suitable time.

M27 (BTV) No reports for over a year now. Will not be routinely included in future. See M53 for some idle speculation.

M28 (HEP) No change. See letters pages. Doesn't warrant routine coverage in future.

M29 (VDE) Lost at present, but no doubt is still around behaving in its predictable way. The only unpredictable aspect of this station is its ever-changing schedules. Once

We've established a schedule we can then follow it. Just the same applies to its voice counterpart, G4. To complicate matters, there is often more than one schedule running at the same time, and changing at different times, some running weekly messages daily; others running monthly messages weekly. In addition, there are two Morse variants to consider - those with no preamble (as with G4), and those which include date/time groups etc.

M33 (P8K) Dormant. See M51 for more speculation.

M34 See M26.

M39 As schedules appear to be unpredictable, we can only catch samples of its activity. It has been quite active recently, appearing at irregular intervals and odd times. Like M26/34 it is found more by chance than by design, and can get quite busy when it is around. A most interesting observation made by one of our monitors was the distinctive keying 'fingerprint' noted in a very recent transmission. This bore the hallmark of an identical peculiarity that I've noticed for a while on one of M10's transmitters. Like M10, this station uses two parallel freqs., a short zero and strings of dashes. For a further clue, see my article on the Czech stations in this issue.

M43 (6XMB/C37A group) Suspicions aired in ENIGMA 12 apply more forcefully now, in the light of information received, but we would like independent confirmation. As busy as ever until recently, but not to be routinely covered in future, as its primary mode is not Morse. Transmissions went dead in July, a similar situation to last year.

M45 See also M1. The 55555 first group, ushered in with the New Year, reverted to its usual 00000 on its first March tr. and has remained so ever since. At the same time the last group reverted back to random. However, this pattern did not continue, for this group is now of the date/GC-1 type again, so it isn't always dependant on the first group. Very odd! A 52 group message began on 31.7.

M50 Becoming better-behaved in recent months. Keying has improved, but can still be atrocious at times. Format has settled down to standard M1 type, 50 groups always being sent. Sometimes this station can be heard nightly; sometimes it disappears for a week or more. Its schedule is unpredictable - daily in theory but not in practice - time/freq haven't changed for years. Operators graduate to M1 from here, once they've acquired suitable proficiency; when in dire need, they are dragged in anyway, it would seem!

M51 Still as frustrating as ever, due to its rigidly-applied 'non-schedule'. Everything about it says "French". I may be wrong, but I suspect it replaced the well-behaved P8K. (A case

of 'plus ça change....' maybe?) Very busy sending long strings of 100 letter messages. Logged last night (31.7) on 4623/5370, for what it's worth.

M52 Very infrequent. Has been active recently but cannot find details! Will be covered next time round.

M53 NEW DESIGNATION - First logged by Guy (Portsmouth) on 2.5 at 2000 on 8231kHz and has continued on most days ever since. I recently found a new slot for this one: same freq.(8231) at 2100. Another 'daily-in-theory-but-not-in-practice' station, but more reliable than M50. Occasionally misses a few nights. Transmissions can often be heard at both times on the same date. They are not repeats. The 3fig IDs are random (like M27/S8) and sometimes messages are sent to two IDs in same transmission. Repeats are sent over the following two or three days.

Format: "VVV CQ 747.822.935" call (R5min) - the full-stops are actually sent in Morse (AAA). "CQ 822 CQ 822 CQ 822 HR HR 47 47 = = (47 x random 5fig single) AR AR RPT RPT VVV CQ 822 CQ 822 CQ 822 HR HR 47 47 = = (R msg)" 2nd message for, in this case, 935, follows in similar way. Transmission ends "AR AR VA VA". Short zero, fast auto Morse.

It has similarities with M27 & S8, including its scheduling pattern and 'fussy' procedure.

M54 NEW DESIGNATION On Tue 10.6 at 0800 on 9252 I heard a very strong ICW station repeating 'CQ CQ DE V890 V890 GRU' repeated for 5min and using a short zero or maybe a 'T' (V89T). Since then, transmissions have been erratic, but always same time/freq: Tue 24.6, Wed 25.6, Fri 27.6, Mon 30.6 & Mon 14.7. Coincidentally (!), a strong FSK RTTY transmission has appeared on some of the intervening dates using a similar bogus callsign and similar procedure. This is one from Tue 8th July: 'DE K231 QTC 1 THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG 1234567890 RYRYRYRYRYRYRYRYRYRYRY NR 001 GR 81 = PBKLH HZLLU'.....and so on, the odd 81st group being 'QTCKK' followed by 'BT NNNN'. A repeat followed: 'RPT NR 001 GR 81 PBKLH etc....QTCKK BT NNNN AR'. This is not a Morse Number Station as such, but the Morse null message call is a novelty worth recording. (As I am writing this, a ten minute RTTY message has just finished - 29.7 0910)

M55 NEW DESIGNATION Although I have only logged this station once so far, it has all the characteristics of yet another Numbers Station: Mon 7.7 2100:9255 a strong ICW signal sending '529 529 529 529 529 529 000 000' (short zero). Almost like a 'doubled' M12 null message transmission, it could well be an obscure M12 variant. Uncharacteristically, though, it lasted for 8 minutes. It didn't appear on Mon 28.7 - the first Mon of August may be worth a try. Has anyone else heard it?

M56 NEW DESIGNATION Logged Tue 10.6 2100:4040kHz sending

repeatedly "3:08920 2:08083" until 2200 when a very short (2-4 sec) fast burst of Morse was sent, and then followed by "2:00893 3:00093" Repeated until 2210+ Apart from that unexpected fast burst, keying was slow (auto) at 8figs/min. Long zero used. The colons were sent as II.

MX (SLHFMs)

A couple of readers have asked why we bother to continue covering these 'markers'. The simple reason is that they are not all merely channel markers, in fact none of them are. Those which are allegedly operated by the Russian Navy (generally short-lived 'P's) hardly stay on frequency long enough to warrant the term 'marker'. They seem to serve more as tuning signals, staying on (usually) for around 5 minutes. We have yet to receive convincing evidence that they are even run by a Navy - Russian or otherwise. Supposing that their alleged locations (Kaliningrad, Archangelsk etc.) are correct, and that transmitters are at Naval sites, this still doesn't imply that the Russian Navy is responsible for traffic. (The large British Naval HF/LF transmitting station at Inskip, Lancs. also carries traffic originating from the RAF. BBC External Service sites also carry espionage traffic from time to time. The RAF have absolutely no operational role at RAF Menwith Hill. These few examples, should illustrate the 'hall of mirrors' surrounding this issue).

Even so, I am by no means denying that some of these MXs are run by the Russian Navy. If they are, then the short Morse/RATT messages sent and the selection of frequencies used are not typical Naval procedure as far as I'm aware. Nor are they ITU-registered like normal Russian naval transmitters, which are allocated appropriate callsigns and frequencies.

However, this still leaves the bulk of MX activity unaccounted for. We must remember that all long-term solitary 'beacons' and all cluster 'beacons' never have been known to send traffic of any kind. We challenge anyone to provide us with logs of such traffic. Just because a single letter is being sent on say, 5880kHz, followed by traffic, it doesn't mean that another or the same single letter being sent on say 3174 or 7039 will eventually do the same. They won't, for they have very different roles, and could easily be operated by totally different agencies. A letter is a letter is a letter: nothing more. It's the stations particular habits which are all important; where content is minimal all we have to go on in the way of externals is its habitual characteristics.

Not only are the cluster & long-term 'beacons' quite different to the 'suspect naval' beacons, but they are also quite different from each other. This is obvious from their habits. The cluster 'beacons' are almost certainly true beacons, not markers, but strategically-placed propagational beacons. We also suspect that that they are closely... [continued on page 40]

M1A/B (EoM) TRANSMISSIONS August 1996 to July 1997

Sheet 4

Month & Time	Schedule No.	(Element) A1/A2/A3	B1/B2	C	D	E (msg)	Repeat group requests	F	G
AUG 18	025	13829	333 12314	-	-	-	-	-	111 000
AUG 20	025	12177	333 12714	-	111 999	766 36	111 77160 90035 53616	-	111 000
AUG 15	025	-	333 14029	-	-	-	-	-	111 000
SEP 18	463	51683	333 51840	-	-	-	-	-	111 000
SEP 20	463	-	333 50320	-	111 999	503 34	111 49386 91161	-	111 000
SEP 15	463	????? (missed)	333 50083	333 08 12	-	-	- (21st:NOT last Sat)	-	111 000
OCT 18	463	51729	-	-	-	-	-	-	111 000
OCT 20	463	51835	-	-	111*111	213 29	111 37590 37590 (x3)	-	111 000
OCT 15	463	50835	111 59531	-	111	183 16	111 47352	-	111 000
NOV 18	197	88054	333 88716 111 87627	-	111*111	164 32	111 97717	-	111 000
NOV 20	197	88183/88836	-	-	111	980 35	111 81335	-	111 000
NOV 15	197	88666	111 88174	-	111	217 19	111 73768	-	111 000
DEC 18	197	89616	333 89119 (once!)	-	111 999	415 40	-	-	111 000
DEC 20	197	89807	333 88527	333 20 333 41	-	-	-	-	111 000
DEC 15	197	88451/88009	-	-	111*111	312 30	111 36571 16613	-	111 000
JAN 18	197	89642	333 89112	333 24 333 19	-	-	-	-	111 000
JAN 20	197	89802	-	-	111 999	868 36	-	-	111 000
JAN 15	197	89701/88667	-	-	111*111	717 28	111 24733	-	111 000
FEB 18	197	89809	-	333 4	-	-	-	-	111 000
FEB 20	197	88813	-	040 01 (197 x3)	-	217 30	000*	-	111 000
FEB 15	197	88004/88719/87674	-	(197 x3)	111	-	-	-	111 000
MAR 18	463	50536	333 51835	-	-	-	-	-	111 000
MAR 20	463	53836	-	(463 6)	111*111	243 30	111 61609	-	111 000
MAR 15	463	51537/51822	-	(463 x3)	-	-	111*	-	111 000
APR 18	463	52521	-	-	111 999	122 40	111 (+7groups) 111*	-	111 000
APR 20	463	51916	333 50630	-	-	-	-	-	111 000
APR 15	-	-	NO SIGN OF TRANSMISSION	-	-	-	-	-	-

Continued on next page.....

8BY 262,306,095 Sample (slightly simplified) - see accompanying article

Date	Time slot h + 40	All positions fixed														Some positions not fixed - 3 examples shown in brackets												G.C.
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
21.11	17	-	262	-	306	095	-	958	629	-	097	645	-	058	(- 532 - -)	-	-	-	-	-	-	-	-	-	-	-	-	9
5.12	19	131	262	012	306	095	-	-	629	-	689	097	-	246	-	-	532	-	-	-	-	-	-	-	-	967	476	12
9.12	18	-	262	-	-	095	-	958	-	-	-	-	645	-	058	207(-	-	-	-	-	487)641	-	076	-	-	-	-	9
13.12	15	-	262	-	306	095	-	-	-	-	-	097	-	246	-	-	532(-	-	-	034	-	641	-	-	-	967	-	9
13.12	21	-	262	012	306	095	-	958	-	-	-	097	-	-	-	-	532	-	-	-	-	641	-	-	623	967	536	11
15.12	14	-	262	012	-	095	-	-	-	-	-	097	645	246	058	-	-	-	-	-	-	-	146	-	-	-	-	8
6.1	15	-	-	-	306	-	-	-	-	-	-	-	645	-	058	-	-	095	401	-	-	641	146	076	-	-	784	9
31.1	22	-	-	012	306	095	801	-	-	-	689	097	645	-	058	-	532	-	-	-	-	-	-	-	-	776	10	
2.2	15	-	-	-	-	-	-	958	-	-	-	097	645	246	058	-	-	-	-	-	-	-	-	-	-	-	-	5
3.3	14	-	-	012	306	095	-	-	629	020	-	097	-	246	-	-	532	-	-	034	-	641	-	-	-	967	-	11
15.3	15	-	-	-	-	095	-	958	-	020	-	-	645	246	-	-	-	-	401	-	487	-	-	-	-	-	-	7
		1	6	5	7	9	1	5	3	2	2	8	7	6	6	1	6	(1)	2	2	2	5	2	2	1	4	1x4	100 total

This sample includes a total of 29 different groups sent in 11 randomly-chosen transmissions. The letters A - Y are group position indicators. They are alphabetically consecutive, but otherwise are chosen arbitrarily, and would only apply to this sample. Due to lack of space, column Z includes four remaining tail-end groups, which should really have their own columns as they are all different. Further samples would create columns of their own, in addition to these A - Y positions, which would interleave with them (up to a possible maximum total of 999, or 1000 if 000 is counted). On 6.1 at 1540 an error (?) was made in the list, where the group in position Q was wrongly placed, and should have been in position E. It is not known whether subsequent transmissions carried the same error. Due to the nature of this station, later groups are less likely to be fixed in small samples such as this, e.g. the T position could occur anywhere between O and U - see examples shown.

M16A is a variant format which occasionally appears, taking the forms: "VVV 8BY 224 ZKY/763/012/893/313/008" or "VVV 8BY 084 397 224 ZKY/739/661" (typical examples) Does anyone know the meaning of ZKY as it's not listed in conventional Z codes? Whether the preceding groups occur in a strict sequence is not known. (They're not separated by /) More help needed!

+EXCEPT J

M1 EoM Transmissions (continued from previous page)

MAY 18	025	11291	333	12869	333	12	111	999	313	40	111	60060	74919	111	000
MAY 20	025	-	333	13752	333	16 (?)	111	999	211	42	111	37396	91357	111	000
MAY 15	unable to copy														
JUN 18	025-288/40	JUN 20	025-189/42	JUN 15	025-413/30										
JUL 18	025-717/43	JUL 20	025-211/44	JUL 15	025-034/35										

These last six are normal M1 messages - not EoM style.
Note same DK for message in May & July 2000 transmissions, maybe just coincidence - maybe not!

LETTERS TO E.N.I.G.M.A.

Welcome along to issue 13 of the ENIGMA Newsletter and our letters pages. First just a short note about our facsimile number. Due to circumstances outside our control the number has now changed; it is now (UK): 01274-799004 or if outside the UK; +44 1274-799004. Please mark any messages 'ENIGMA', as our mailing centre receives letters and facsimiles for many different organisations.

Now, onto your letters, and there are lots to get through. First off, some feedback about our comments concerning Swiss callsign HEP. Leslie in Sheffield tells us that HEP is active in Morse, 50bd RTTY and SITOR. The list so far; HEP 8400 SITOR, HEP3 3314 CW, HEP5 5269, HEP7 6873 50bd/CW, and HEP9 9187. "If it is an Interpol (now Europol) station as claimed by other sources, it is one of two I know of still active on HF. Interpol used trigraphic tactical call signs as HEP does to indicate national origin, for example: GMP London, DEB Wiesbaden, FSB Lyons, JPA Tokyo, SUI Cairo, TCC Ankara, ONA Brussels and AYA B.Aires. This complies with the ITU regulations. As most of these stations have left HF for satellite I will not give details of old frequencies used. HEP follows a convention of its own; the numerator perhaps indicates nearest whole MHZ frequency, on HEP. No traffic has been heard passing from it or to it by another station, and it is likely that it occupies the frequencies to keep them clear for emergencies. It may very well be a back-up but not a very sensible one given the other modes available. Has anyone ever heard any traffic?" Thanks, Leslie, for your comments.

Michiel in The Netherlands also comments on HEP: "Regarding HEP, the QSLs issued by Interpol Schweiz are convincing, aren't they? I have one myself and it leaves little doubt. Not including HEP and FDC in future editions seems a wise decision, since these are obviously stations from a different category". (Ed note: We have never seen an officially issued QSL card but have heard about a so-called 'home-made' QSL card once reported to have been verified by HEP. If an address is known and an official QSL card exists, we would be happy to print details for other readers - but why the reluctance from the Swiss PTT to answer our previous questions (see issue 11 page 14) ?

Brian in Sussex also comments on HEP: "I have been monitoring this recently, and have sent a QSL letter to Interpol for their transmission. So far no reply, we will see! It is interesting to note that both the 1990 and 1996 Klingenfuss Utility Guides no longer list HEP as a call-sign, although it is listed in the 1986 Edition as Interpol, Zurich. This may help to pinpoint the time HEP changed its traffic onto satellite links. Why Klingenfuss fails to log the active frequency of 9186 kHz I don't know. Perhaps it was simply missed, or was not operating during recent years. Perhaps too it may be connected with his policy of not listing number stations and similar never-identifiable nonsense, since no traffic is ever sent. The first explanation seems more likely in my opinion. Further, a curious coincidence perhaps is that in the 1996 book 9186 kHz is listed as being used by the Italian Civil Protection-Rome on SSB.

* West Wickham - but is there anything there?

+ Lyons HQ is still active on HF & has worldwide point-to-point links, probably to other sites on this list. - Ed.

Could this perhaps be part of the solution to these mystery stations, with the CW marker being used to keep open the frequency and continually test the link ? " (Ed note: It would not be testing a link: it's one way only).

Michiel also answers our question about the SOUD stations (also known as the KUL) ENIGMA reference M42. Michiel says SOUD stands for (German translation changed to English) - Soglaschenije o sistema Objedienenovo Utschotja Danych o protivnika. We had a few problems with the literal translation at this end but it approximates to "System for the exchange of information concerning the enemy"... Curious that it is still so busy - just who is the enemy? Could it be you and I.....? Could any reader please tell us what the word 'Objedienenovo' means in English ?

Thinking of visiting Scotland for a holiday ? Why not visit one of Scotland's secret bunkers situated at Crown Buildings, (near St.Andrews) Fife KY16 8QH. ENIGMA recently received a mail-shot giving details of this cold war relic.

Run by the Anstruther Defence Establishment Preservation Trust this amazing labyrinth, built 100 feet below ground, and encased in 15 feet of reinforced concrete, is where regional government and military commanders would have run Scottish Eastern Zone had the UK been attacked and nuclear war broken out.+ For more details telephone UK: 01333 310301 or Overseas +44 1333 310301 or facsimile 312040. A colour leaflet and information is available on request.

+ It is one of a large number of similar bunkers, but the only one regularly open to the public.

Greetings now to Gert in The Netherlands. Thank you for your logs. You raise an interesting point about the frequency usage of number stations. Concerning 3-Note Oddity (G4), this station does choose its frequencies carefully and avoids the amateur radio bands. You mention E10 station CIO which used to use 10125 kHz, and say that when the amateurs appeared between 10100 & 10150 kHz CIO disappeared? "I believe that number stations have people who choose frequencies and are aware that amateur bands are scanned by more radio listeners than other frequencies". Good point, Gert; these stations don't want listeners. (Ed note: G4 & E10 etc are only choosy in so far as amateur and broadcast bands are concerned - they have no scruples about using maritime/aero bands).

ENIGMA continues to receive mentions in many other publications, and of course that attracts more new members. We are still receiving enquiries from our October feature in Short Wave Magazine Greetings to Doug in Leicester, Paul in London, Matthew in Bristol, Omar in Berkshire and 'R' of Cornwall. Roberto in Torino Italy, who read about us in the Italian electronics magazine "Elettronica Flash"- the author of the feature, Mr Borgnino, described ENIGMA as "The Best" !! Greetings to all members of "Contact Magazine" which recently carried a numbers station report. Thanks to Ken in Doncaster for the copy.

ENIGMA also received several letters from Australia (do you get good reception of Cherry Ripe?) following a mention in the March issue of 'Radio & Communication'.

We regularly receive enquiries about the purchase of back-issues of the newsletter;

recently D.H. of Sidmouth, David in the United States and Matthew in Bristol have contacted us. We have enclosed with this issue a back-issues order form. We will do our best to supply any orders received, but would ask you to allow about 4 weeks to complete orders. Thanks.

Hello now to a regular contributor to the US magazine 'Monitoring Times', Takashi in Nagasaki, Japan. Takashi has been a keen listener for many years. We will look forward to your contributions from that part of the world.

Thank you to all our readers who renewed their subscriptions. It is a great vote of confidence that so many readers renew. If your subscription is due for renewal with this issue you will find a form enclosed with details on how to continue receiving the newsletter. Greetings to Lars in Germany, who tells us about a Morse reader package which he uses to read the numbers of OLX messages, in the current version the available modes are BAUDOT, ASCII, AMTOR ARQ/FEC, SITOR A/B, NAVTEX and PACTOR. At around \$100, he feels it is good value. Details from: Dieter Dippel, Muggenhofer Str.193, 90429 Nuernberg, Germany. Lars tells ENIGMA that he is at present in the Army so does not have a great deal of free time for listening.

Hello now to Jonathan in Zimbabwe and thank you for the cassette recordings of E10 stations. Jonathan also collects books on espionage and tells us about his latest purchase: 'The Guinness Book of Espionage' by Mark Lloyd - Guinness Publishing, 254pp, ISBN 0-85112-591-3, £14.99 UK.

The volume deals at first with the early history of espionage and early efforts at cryptography, and profiles major figures and agencies of the day. I quote from the rear cover: "The Guinness Book of Espionage looks at the real world of spying - military, political and commercial - and charts the story of subterfuge throughout history. It contains fascinating details on: The people; Their methods; Equipment and technology; The famous incidents; Services and operations and Secrets in Office." The book also has a number of interesting appendices such as the short histories of the world's major agencies. It's also suffused throughout with diagrams (e.g. the ENIGMA cipher machine schematic) and black-and-white photographs of people, places and gadgets. In short, it is well worth it, and no budding student of the subject should be without it!"

Thank you to all the readers who regularly send in logs. Your logs are very important in confirming schedules and activity levels, and of course finding new transmissions and frequencies - and even new stations !

Regular contributors (too many to mention) but a sample includes Rob in Essex, those very well presented logs from Hansin Trier, Germany, Costas in Athens, Ary in The Netherlands, Pertti in Finland, Chris in Westminster, United States, Guy in Portsmouth, Mike in Kent. Sorry if we were unable to mention you.

A correction to issue 12, page 29: Helmut in Austria sent in some logs and says he enjoys reading ENIGMA, he says "the German word "Militärchiffren" does not mean military chiefs. It means Military chiffies (codes). The department dealt with

decoding of military codes." (Ed note: 'Chiffre' is actually French for figure/number/code/cipher). Apologies.

Greetings now to Peter in Saffron Walden. He writes, "I was interested in the comments in ENIGMA on the subject of monitoring the local oscillator of a nearby receiver to determine its operating frequency, after the manner described in "Spycatcher" i.e. "RAFTER". Receivers certainly do radiate to a greater or lesser extent; older domestic valve receivers radiate the most as there can be several hundred milliwatts of power going into the local oscillator, I have often tuned across the bands and found a strong carrier and then realised it was coming from an old valve receiver which I usually keep parked on a World Service frequency. Modern synthesized receivers radiate too, the synthesized local oscillator in my Lowe runs at 45 MHz above the read-out frequency and I have in the distant past used it as a nice stable VHF signal generator to produce a 70 MHz signal to peak up some 4-Metre Amateur radio gear. This principle is also used by the TV detector vans; they locate a TV set by picking up the signal from a TV's local oscillator while cruising past someone's house and then checking on their data base to see if the occupant has a TV licence.

It is worth bearing in mind that our equipment can betray its presence in this manner; there has been much in the press about VHF/UHF scanners and there have been calls to make them illegal. A government like the present one with a large majority and which has already announced its intention to ban such aspects as hand guns, 'Alco pops', fox hunting and cigarette advertising may well turn its attention to the radio hobby in the not too distant future and may feel inclined to pass new laws - and enforce them - with regard to what we may or may not listen to on our radios. I gather there are already restrictions with heavy penalties on the possession of certain kinds of radio receiving equipment in some EU countries and these might form the basis for a whole load of new legislation in the U.K."

We may run a short feature about the case of Erwin van Haarlem, however, we would like to gather further information. If you have any press cuttings or information about the case please forward copies to ENIGMA. Can any readers remember a 30/40 minute Television programme which was made about the case after the trial? It may have been in the BBC series '40 Minutes'. The programme was a dramatisation of his activities in Britain and showed the Security Services breaking into his flat while he was transmitting Morse by hand back to Czech intelligence. We hope to run the feature in the next issue, so any information would be appreciated.

ENIGMA has received a letter from a recording company producing sample - based dance music, and who initially attempted to contact 'Langley Pierce' (who is reported to be 'too busy to assist in any projects'!!!) Dominic, representing the company, composes music in his own studio and has almost finished one track for release under the name "Complex Numbers" and is presently researching items for his next track. The project is also looking at the possibility of producing "talk tapes" about radio communications. Armed with this brief he contacted the Radio Communications Agency (part of the DTI) - ENIGMA readers will be amazed to

read that the agency advised "the use of material monitored off-air may contravene the Wireless Telegraphy Act" and even more amazingly "the use of abstract recordings may contravene copyright law". The DTI were however most helpful in sending an amusing two page facsimile setting out the legality of receive equipment (in the vaguest of terms). We hope to say more about this in our next issue. If any number station operators would like to contact us about copyright matters we would be delighted to print their responses in ENIGMA. We look forward to the positive flood of letters!

Greetings now to our regular reader Andreas, in Germany. Thank you for all your help and support. Andreas tells us about a report by Bodo Wegmann which he found in the magazine "Informationen für die Truppe" (Information for the Forces). The report concerns military intelligence in the former GDR and gives a brief history of the GRU-style organisation. Its name changed from "Allgemeine Verwaltung" via "Verwaltung für Koordinierung", "12.Verwaltung" and "Verwaltung Aufklärung" to "Bereich Aufklärung" (from 1984 onwards - translated as Department of Intelligence). All this belonged to the NVA (Nationale Volksarmee-National People's Army) of the GDR. They co-operated with the MfS and also had their own agents, mainly in West Germany. They also co-operated with the GRU and the military intelligence organisations of the other European socialist countries (e.g. The Bulgarian RUMNO, Polish ZII, Hungarian VKA II and the Czechoslovakian ZS. In 1990 after the great changes of 1989, all this should have been restructured, but this did not happen. According to the article, in March it was decided to discontinue this intelligence service (after the elections of March 18th the new government came to power and were keen to proceed with rapid unification). The article states that the last radio message sent to agents was in May 1990.

If we link this information with Simon Mason's "Secret Signals", in the first chapter - Silent Stations - he notes that the Four Note Rising Scale Station (G8) vanished towards the end of April 1990, and the Gongs or Chimes station (G3) closed down in May 1990. Could ^{that} mean that only G8 was operated by the MfS, and the Gongs or Chimes station was operated by East German Military Intelligence? Comments welcome.

Andreas also writes about our review of "The Ultimate Spy Book". 'Just a few days after receiving ENIGMA 12 I came across the German edition of the book. "Der perfekte Spion" (literally translated as "The Perfect Spy") costs 49,80 DM, the publisher is Heyne Verlag, Munich, and the ISBN is 3-349-11480-9. I agree with your review that this is a great book, very interesting. I have ^{ready} many books about espionage, but with the help of this book it is possible ^{to} imagine what other authors are only able to describe'.

Andreas takes me up on a point I mentioned in the last issue, where I commented that a great deal of effort and expense is required to block number station messages. However a former MfS officer who defected to West Germany stated that if you missed one group it was impossible to decode a message, this raises some interesting questions. If you miss a letter from a phonetic alphabet transmission does this render the message useless? I would be interested in

receiving readers' comments on this subject. (Ed note: This would depend on the form of encryption used, content or continuity of message etc. Sounds most unlikely that the whole message would be rendered useless. More likely a missed phrase or word, which may or may not be crucial).

Several letters have arrived concerning part one of our E10 feature (part two in this issue) - particularly the subject of possible cooperation between the security services of South Africa and Israel. Andreas comments - "A South African connection is not as impossible as it may sound. Note that both Israel and the Republic of South Africa both came under considerable political pressure in the 1980's. Both were internationally isolated. And there was secret military cooperation. I recently heard about the secret nuclear weapons programme (Ed note: Which Mordecai Vanunu, still in solitary confinement exposed all those years ago - after being 'illegally lured and kidnapped by Mossad), which was indirectly admitted by the former Israeli government just recently and was a joint effort by South Africa and Israel. Another point is the interest of Mossad in African countries which are detailed in Victor Ostrovsky's book".

Brian comments: "Very good, and I like the use of various sources to provide the information and support the various arguments. I agree with you that the idea of using transmitter sites in friendly countries is likely. There will always be cooperation between countries where there is a trade-off or a mutual advantage in doing so". As if to prove the point 'D' very kindly sent me a vast array of clippings and interesting documents; thanks. Included was this recent clipping: "IRAN SEEKS SYRIAN AID TO BYPASS SPY CURBS. Iran has asked Syria for permission to use its espionage infrastructure in Europe in an attempt to circumvent tighter controls on Teheran's spies according to Western security sources". The article goes onto confirm a warming of relations between the two and confirmation that they have signed agreements on matters including communications. (of course, Iran and Syria were responsible for Lockerbie bombing. Libya was merely a convenient scapegoat which served the covert interests of Western (CIA) intelligence agencies-Eds).

We appreciate clippings and news articles - which, although not for direct publication, are very useful in gathering information for future features. If you see anything you think we would be interested in please post it to our mailing address; thanks.

Message for 'D'. Please forward a mailing address in good faith. Thank you for all information, clippings, articles and logs which are most appreciated. ('D' We ran the Britten feature in issue 12). Thanks also to Mike in Kent for forwarding information of interest gathered from the Internet.

Thanks to Rob in Essex for the logs which you gathered during your recent holiday in Greece. Remember if you are planning a trip to another country please let us know what you hear and the signal strengths.

REMEMBER - ENIGMA IS YOUR NEWSLETTER AND WE REALLY APPRECIATE YOUR LETTERS LOGS & COMMENTS. IN ADDITION, WE ALSO COLLECT CLIPPINGS AND RELATED MATERIAL OF INTEREST TO OTHER READERS - NEXT CONTRIBUTION DEADLINE - FRIDAY 28 NOVEMBER 1997.

NUMBER STATIONS MAKE THE NEWS !!!

Much to the displeasure of various British and foreign agencies ENIGMA continues to promote the little known subject of Number Stations. In addition to our dedicated private readership ENIGMA attracts the attention of both the UK Government and overseas agencies keen to learn just what we may or may not know! * Helpful note to agencies-we may, of course, know more than we choose to publish at any time !

The subject of Number Stations has never received much publicity in Britain. Indeed, it would be true to say that the British public know more about how to make kreplach, a Jewish form of ravioli, than they do about Number Stations.

There has always been a slight unease about the subject in Britain. The laws concerning radio listening are ambiguous: one must not divulge the contents of radio transmissions other than broadcast, amateur and citizens band stations (actually, people have been fined for listening to pirate radio stations-not strictly illegal). The result of this being that the British shortwave press were reluctant to acknowledge the subject until quite recently. Former Prime Minister, Mrs Margaret Thatcher, worked herself up into a lather about the book, "Spycatcher", by the late Peter Wright, resulting in a bizarre sequence of events which eventually led to its ban in the U.K. (although it was widely available). I don't have the space to go into the story of the Zircon spy satellite affair just now but the point is clear - any attention given to certain subjects seems to set the panic alarms ringing. Number Stations are one such subject.

In October 1996 ENIGMA was successful in submitting a substantial article for publication in the British news stand publication, 'Shortwave Magazine'. The 10 page pull out supplement provided an introduction to the subject and featured profiles and schedule details of some of the most common stations. The feature, guided by ENIGMA, gave the largest and most detailed coverage Numbers Stations have ever received in any U.K. publication available to the general public.

The media are always on the look-out for an interesting story, indeed anything which involves espionage, the Government and secrets will make a good story; combine all three and you are onto something good.

On Tuesday, January 14, 1997 the British national newspaper, The Daily Telegraph ran a feature in their 'Tuesday Supplement' entitled 'Is the Cold War really over?' Produced by journalist 'Will Thomas' the article opens with the comment - "Short-wave radio stations that appear to broadcast spy codes raise interesting questions". This excellent feature included comments from both ENIGMA and Irdial-Discs and covered the workings of Number Stations in a format which was easy to digest by readers with no previous knowledge of the subject. Two photographs were included, one of Kim Philby and the other of a substantial antenna aloft the Hungarian embassy at Eaton Place, London. 'Will Thomas' had, however, pulled off something of a coup - in obtaining a comment from the

Department of Trade and Industry (more on this later).

You may be aware that the national newspapers purchase and scan the local papers looking for interesting stories. The same is true of radio and television stations who are always looking for a lead.

Within hours of the publication of the Daily Telegraph article BBC Radio 1, Britain's national 'pop music' station was keen to get in on the story, Radio 1 runs a fast moving news programme entitled "Newsbeat" which is aired at peak listening time 17.30 hours local time Monday to Friday. Radio 1 ran a five minute interview with Akin Fernandez from Irdial-Discs, conducted from the roof of Broadcasting House and included excerpts from Lincolnshire Poacher and Swedish Rhapsody explaining just how easy it is to tune into a Numbers broadcast.

Not wanting to be left out, London-wide MW radio station Radio Liberty 963 kHz, followed with a feature and included more recordings.

Following on, BBC Radio Scotland contacted ENIGMA and produced a feature on Number Stations for their programme 'Peace & Jam'. The programme featured an interview with Akin and plenty of examples of just what you are likely to hear.

With the ball now rolling more was yet to come.....not to be out-paced, BBC Television made contact with ENIGMA keen to produce a feature for the News & Current affairs series "Here & Now", with a Monday evening audience of between 8 and 9 million viewers.

Following an initial meeting held on January 29th filming was scheduled for Monday February 10th. An outdoor interview was conducted by television presenter John Walters at R.A.F. Menwith Hill near Harrogate in North Yorkshire (complete with Military Police escort). Menwith Hill which has recently taken on an R.A.F. designation, is wholly operated by the United States' National Security Agency and is the World's largest SIGINT site. Photography is frowned upon by local Military Police who patrol the perimeter roads 24 hours per day. Outdoor filming completed, the next stage consisted of the filming of some indoor monitoring, and a more detailed interview about ENIGMA and the operation of Number Stations. The slot was transmitted on April 21st, entitled 'Number Spies'. It also included 'soundbites' from Oleg Gordievsky (former KGB controller) & Nigel West (spy writer) who each confirmed ENIGMA's view of Number Stations. Britain's GCHQ, DTI & Foreign Office were also approached to comment for the programme; each replied with non-committal, non-informative 'answers' and did not wish to elaborate !

GCHQ commented: "GCHQ are aware of the existence of Number Stations but cannot comment on operational matters".

FOREIGN OFFICE: "We do not comment on operational intelligence matters" (spot the form-like answer).

DEPARTMENT OF TRADE & INDUSTRY (They attempt to regulate all radio

transmissions in the U.K.) - You may remember that I mentioned a comment made earlier by the DTI to 'Will Thomas'. For his feature in the Daily Telegraph he managed to extract one of the most revealing official comments ever made by the U.K. authorities. Andy Tower, a spokesman for the DTI said: "These broadcasts are what you suppose they are. People shouldn't be mystified by them. They are not for, shall we say, public consumption". When the BBC approached Andy Tower on behalf of "Here & Now", for a repeat performance, he is reported to have said: "You can use my comments to the Daily Telegraph, but I am not prepared to say them again to yourselves" - could it be that he had momentarily forgotten to say: "We cannot comment on operational matters"? He should have been dismissed forthwith for his thoughtless disregard of official reticence!

So what is the verdict ? - First, ENIGMA's own view. Considering the amount of effort put into the slot it was more revealing what was not broadcast than what was. Virtually all comment had been removed from the final version and interestingly the musical interludes used by stations had also been removed. Outdoor shots of monitoring sites had been edited down to nothing more than antenna shots leaving the sites unrecognisable. Identical aerials to the three shown can be found at HMGCC Poundon. But on the positive side, Numbers Stations made it onto national television - certainly for the first time, and the lack of comment from official bodies played off well against the positive backing ENIGMA received from Oleg Gordievsky, Nigel West and Akin Fernandez from Irdial Discs. All things taken into consideration, ENIGMA was seen to be correct in its assumption that these transmissions "are what we suppose them to be"! Finally, despite an audience of between 8 & 9 million viewers we have not received any feedback from the general public forwarded on from the BBC. Our dealings with the BBC were less than satisfactory, despite sending 3 letters of enquiry and numerous telephone messages left on unattended answerphones, replies to which were never returned - only a letter of complaint finally generated a response from the 'Here & Now' office. We were very concerned that letters of enquiry and telephone calls from interested viewers had found their way into the Black Hole of MI5?

Finally, on June 27 the BBC did reply to just one of our letters - "I've spoken to the production team here, and to the reporter John Walters, and have discovered that there has been some interest expressed in ENIGMA. John has been approached a couple of times in person - and passed them on to the people who'd asked for them - and our production secretary also received a couple of calls and again passed on your address. So I imagine, those people would contact you direct. We also have an open phone line after the programme - and your details would have been passed on to anyone who called at that time". Despite the viewing figures (and yes it is true, I was stopped by numerous people in the supermarket and while out and about - all saying they had seen me on T V - such is the power of Television) we did not receive a single letter from a member of the public who wanted to know more ! - Could that suggest a conspiracy of silence and yet a further example of the BBC's incestuous relationship with a certain agency famed for its new 'open' policy ?

And now a selection of your comments on the programme.

"Thanks for sending out the notification about the item on 'Here & Now'. I would almost certainly have missed it otherwise. Although from my point of view there were no revelations in the item, it was nevertheless quite something to see the subject covered at all on TV. It will be interesting to see if it generates any interest from those who, up until now, have been blissfully unaware of the strange goings-on on the short-wave bands!"

" I thought it was presented in a very positive way, light-hearted - but without the misrepresentation or ridicule that can sometimes be used by the media"

" Congratulations on a very interesting programme"

" The first minute or so started to sound like a 'joke' but ended up in a reasonable way which gave credence to our hobby, pity you couldn't get our address in"

" I saw you on the 'Here & Now' programme. It was very interesting with some familiar sounds and I was very impressed with your equipment"

"I just wanted to say how much I enjoyed the TV programme on Monday; it was nice to see the person* who is the 'brains' behind the whole thing; I imagine that you little thought then that ENIGMA would become what it is today, a real credit to yourself and the others involved down there" (* one of them, that is - our Frontman: - Ed)

Not all readers were pleased with what was aired - the most common theme running through some letters we received was the way in which the programme had trivialised a serious subject by the use of overlaid music and various gimmicks typical of such TV presentation nowadays.

Sadly the media have a habit of treating most things they do not understand in this manner, the recent job advertisement by MI5 (see page 63) brought out the very worst in 'James Bond' style espionage jokes and comments!

Thanks for all your comments. Thanks also to Shortwave Magazine for publishing our address and details in response to a letter from Ian in Ayrshire - "I found the programme very interesting, especially seeing an old valve receiver used for listening for these stations. It's ironic that old technology is being used to listen for old cold war style spy stations....."

An finally in response to lots of requests, the receiver in use was an Army '52 set' 1944. The 'Spy' set in the background was MK 122- (variant)- 25 watt transceiver used by the British until the 1970s as part of the Stay Behind comms. The 2nd 'Spy' set was MK128A, battery operated TR, 1w output, as used by Mercenary Forces and 'Insurgents' for destabilising operations backed by HM government. All 3 sets are in mint condition and in full working order.

THE CZECH STATIONS (continued)

Having dealt with the better-known Czech stations, we'll now start on those with less conventional habits. The most well-known of these is S17; the others are decidedly elusive and hardly ever reported - S18, S19 & S27.

S17 is often referred to as a 'control' station, as it operates daily, and sends minimal information; its 'message' element consists of a single non-random 5fig group. Format is almost identical to that of M10 or S10C. The call never varies nowadays, and commences at 1455: "555 555 555 313 313 313 05". At 1500 the preamble is sent: "313 313 313 42 42 05 05 Pozor! Pozor!". The 5fig group is then sent ten times, followed by the ending: "Pozor! Pozor! 42 42 05 05 Konec Konec".

This format doesn't behave according to the rules of M10 & S10C, however. The ID (313), Decode Key (42), and Group Count (05) have remained the same for several years now, the only variable being the 'message' group. The GC should be 01, as there is only ever one group. Either it's a very long-running error which has never been corrected, or - unlike this position in M7/M10/S10 - it isn't a GC at all but refers to something else. (Unlike many stations where GCs of less than ten are given in single digits, the M10 family use two figures, the first being zero).

However, things haven't always been like this with S17. For instance, in July 1993 (my earliest log) it was sending: "555:998-02/42" Here not only the ID is different, but also the GC & DK appear to be transposed, and the GC is 02, not 05! (Annoyingly, I didn't record whether 42 or a single group followed. It would seem that that everything external to the 'message' is now redundant and a mere relic of earlier times when it once would have had a role).

At that time it was using 5311kHz. By October 1994 it was using its present ID,DK & GC(?) on 7882kHz. By 21.11 it had moved to 6974kHz where it remained until 31.12. In January 1995 it moved again to 4485

//5027kHz where it has remained ever since. Parallels probably existed for 5311,6974 & 7882. In England reception on 6974 at that time was very good. The present choice of freqs tend to give poor reception here. There could be another daily transmission, for in 1994 it was logged at 2325 on 5616kHz sending two sets of CNS "555 555 555 * 555 555 555...." It was also heard in December of that year at 2000 on 5530kHz.

Messages, so-called, are not random, and can be divided into three elements: the first two, the third and the last two figures. The third figure is always (?nearly always) a zero and, if so, serves no function. The first figure is related to

the next and is usually in the 5-8 range. The fourth is probably related to the fifth and is usually 2. Often the last pair is 00. Here's an example taken over a 31 day period: 69042 (3 days missed) 70022 (6 missed) 67000 69023 (5 missed) 64000 66025 (1) 68000 (1) 69025 68021 66000 67000 67000 (1) 68026 68024. This is typical. Slow cycles may be detectable in the overall distribution of first figures over long periods. More analysis is needed before we can come up with any further 'rules'. Anyone able to monitor this station on a long-term daily basis could provide us with useful information. Any ideas about the possible purpose of these transmissions would also be welcome.

S18 & 19 we will deal with together - not because they have similar roles, but because they are both extremely infrequent. They are so rare that virtually no complete logs exist. Logs such as "Czech male, ends 'nula nula nula'" are woefully inadequate, and most frustrating! I have heard this slow 'gravel-voice' on a few occasions over the years, but always either just finishing or in mid-flow. As such, no complete format exists, so we can only surmise and compare with well-known Czech stations. The division into S18 & 19 is itself rather arbitrary, as there are possible variants to consider also. With so little to go on, it's difficult to classify its habits in any way at all.

S18 is the 3fig/5fig 'type'. I heard this once only on Wed 29.9.93 at 1030 on 7498kHz sending: "059 059 059 47329 47329 77329" for 5 minutes followed by 30 seconds of M7-type rapid dashes. M39 operates an identical format, and this could have been the last of an M39-type cycle. It could have been replaced by M39. See M39 in Morse news - this issue.

S19 is probably a male equivalent of S17 - if so, why the need? I logged this on 27.9.93 at 1900 on 3323kHz sending the call: "222 222 222 698 698 698 05" Due to very bad conditions I was unable to copy whatever followed, but within a couple of minutes the carrier went off, so presumably a single group was repeated a few times.

S19A is a variant of the above. I logged this one on 3.11.93 at 0700 on 6.35MHz approx. (receiving on the famous "Here & Now" 52 set!) It sent 5 minutes of "888 888 888 255 255 255 000" followed by a S19-type transmission: "888 888 888 018 018 018 05" (R5) followed by very few 5fig groups. (QRM this time!)

Apart from these three logs I've heard this elusive voice a few times late at night in the 3/4 MHz region -always either just finishing or under very bad conditions! Very occasional logs continue to trickle in, the most recent one being on Mon 2nd June, ending 2100 on approx 4.6MHz.

S27 is a newcomer, to ENIGMA at least. It is briefly covered in Voice Station News in this issue. It uses AM, and a new (to me) Czech female voice, with slightly different

pronunciation of certain numbers. As it uses variants of complex format I intend to cover it fully in the next issue; it needs its own feature. Meanwhile, please send in any loggings of unfamiliar Czech voices. (They need to be as detailed as possible, otherwise they are next to useless. If you cannot transcribe numbers in Czech, make a tape recording, and send it to us). This new station is definitely connected in some way with M10C, which has recently become active (?again). There has been an upsurge in unusual Czech activity, paralleled by a general reduction in Russian activity. What can all this mean?

[continued from page 25]

...closely linked to certain intelligence agencies. We will cover this in greater depth in a future article.

Until somebody can convince us of the innocence of these things we'll continue to cover them.

There's been a major development in the cluster bands. 'S' & 'C' have been operating alone for many years in these bands. They've now been joined by a 'P', which is dominant in England. (especially in the lower bands) Although still a shadow of their former glory, when numerous channels within these bands would sometimes be occupied, several extra transmitters have been brought back into operation to provide the new 'service'. The lowest cluster and only unreliable one (4556) seems to have been inactive since April. Again, I feel I must remind you, this new 'P', being part of a cluster, has no connection with other, non-cluster, 'P's. (It just happens to be the same letter). The latter variety have also been quite active recently on the usual 4031, 5880//6935kHz, and also on new (?) freqs. of 5110 and 5863. They are behaving as they always do, in their possible naval capacity! Lastly, we have the old faithful solitaires: 'R', 'V' & 'L' (chirpy as always). No significant changes to report. 4325kHz may not be active at present (bad FSK QRM here), but then it was never as reliable as 3323//4196. 'V' seems settled for now on 3174, and 'L', most reliable of them all still chirping away on 3091kHz. For a while in April/May another 'V' (regular spacing) appeared on 4647kHz, a new freq.

MESSAGE ANALYSIS Due to lack of space a feature analysing a particular G4 message has been temporarily withdrawn. Thanks to Andreas (Germany) we have a computer programme for basic message analysis, which we can supply to anyone who may be interested. Please contact us if you'd like a copy.

THE LIFE AND TIMES OF CYNTHIA

"Voice Of America"

A look at European Operations

Part One.

Written by P.S. in Saffron Walden with additional material from ENIGMA readers.

■ **INTRODUCTION:** The newcomer to the numbers scene soon comes to recognise certain voice stations which are heard on a regular basis; one of the most distinctive of these is the English language counting station, which has a female voice with a distinct American accent speaking five figure groups. She has been around certainly since the 1970s at least; she can be heard on any day of the week; she has been noted in the early morning, around mid-day, at various times in the afternoon, and during the evening.

I first became aware of this particular lady towards the end of 1990; I was not all that interested in numbers stations then, being more a fan of the radio-teletype transmissions from the various news agencies which were still using HF RTTY. As I tuned around looking for the characteristic frequency shift carrier of teletype in full flow I would often come across this American lady who seemed to speak only groups of numbers. The transmissions were usually very strong, often almost as strong as - and in a few cases stronger than - many AM stations in the shortwave broadcast bands. Since she seemed to be on the air every time I tuned around in the evenings, and it was clear there was a definite schedule with regard to the day of the week and the time of day, so I decided to keep a log of her activities. I have continued to take an interest in her ever since and my observations form the basis of this article.

■ **FORMAT:** For those not familiar with the lady in question, a description of the format might be useful. Transmissions begin on the hour, her time-keeping is usually pretty good, starting within a second or two of the hour indicated by a watch set up against the Greenwich "pips", although in the past she has been noted on a few rare occasions starting up to half a minute or so early or late. She speaks a three figure call which is repeated three times followed by "1234567890"; this continues for ten minutes. At ten minutes past the hour ten one-second bursts of audio tone are sent and she says "count" followed by a two or three digit number; this is then spoken again as is the number of five figure groups forming the encoded message which will follow. The message is then spoken, and there is a distinct pause between the third and fourth figure so the groups might more correctly be described as "three plus two" figure groups rather than five figure. This done, she says "repeat", followed by "count" and its number, again spoken twice, and the message is spoken a second time, finally finishing up with "end". (* nearly always - Ed)

■ **MODE:** The mode of transmission is a little unusual; it is upper sideband with carrier, or to put it another way AM but with the lower sideband suppressed whichever way you want to look at it. It can be copied quite well on an AM receiver, provided the signal is reasonably strong, but sounds much better with the receiver in USB mode especially if the signal is weak or if there is co-channel interference as is often the case these days.

Once the transmission has ended, the carrier usually stays on for a few minutes at least; this has a characteristic background noise which is difficult to describe but is very distinctive and soon comes to be associated with the American accented lady. The "engine" noise does not seem to be quite as common as was the case a few years ago but carriers are still noisy. The use of USB is becoming more common.

■ **FREQUENCIES:** A variety of frequencies used by this lady over the years ranges from 4007 kHz at the lower end of the HF part of the spectrum to 29790 kHz - almost VHF - noted in use on Sunday afternoons during the winter of 91/92. At times the choice of some of the frequencies used is rather strange; for example at the time of writing a couple of her favourite channels are inside internationally agreed broadcast bands with consequent QRM from strong broadcast stations making copy extremely difficult for the numbers enthusiast, the use of such frequencies perhaps suggests that the intended recipient may be outside the European target area.

Perhaps the strangest choice of frequencies was also during late 1991 and early 1992 when she was noted using a couple of frequencies in the 27MHz band resulting in mutual QRM with the Spanish and Italian kilowatt CBers which infest that part of the dial when conditions are right. In order to ensure the message gets through, usually two - and on a few rare occasions three or even four - frequencies running in parallel are employed, which are typically two or three Megahertz apart, and even where we are only aware of one there is no doubt another one somewhere which we have not been clever enough to find ! A compilation of all the frequencies used by this lady over the last seven years gives a total not far off 100.

■ **AGENCY:** So perhaps at this point we might take a few moments to consider on whose behalf this transatlantic temptress works so hard. Perhaps there is clue to the answer to this riddle in the nickname by which she is affectionately known to her followers; whereas she is referred to in the ENIGMA Newsletter as "English Language Counting Station E5", she is known to her followers by the much more romantic sounding name of CYNTHIA ! Why ? Well, perhaps because her voice is sampled or synthesized by computer techniques, but if we take the first letter of her name together with the last two we have the initials of the intelligence organisation who are her employers, and who have their head office in Langley, Virginia, U.S.A. This is not to say that when we hear her she comes to us directly from a site up the Potomac River from Washington D.C.; to be heard as strongly as she is on this side of the Atlantic she must be relayed from transmitters in Europe located in countries friendly to the United States.

■ **LOCATIONS:** The whole subject of transmitter locations is made more difficult with this particular station due to its worldwide coverage and reliance on host countries. We will start with the mainland United States and work towards Europe.

UNITED STATES	- Warrenton, Virginia
CENTRAL AMERICA	- Panama
FAR EAST	- Guam
	- Japan

AFRICA

- Australia-
- Diego Garcia
- South Africa Ascension Is.

ENIGMA has learned that the CIA have now established facilities in South Africa which are 'classed' as their African HQ following the demise of the Liberian operations centre.

EUROPE

- England - Barford St.John, Oxfordshire.
- Germany - Frankfurt area.
- Spain
- Portugal
- Greece - Tatoi and Nea Makri near Marathon
- Turkey
- Morocco

■ **OTHER FORMATS ('CONTROL' TRANSMISSIONS):** As well as the frequently heard 5 figure transmissions, our Cynthia has also appeared on the air in another form (E14). At one time she could be heard daily with transmissions of ten minutes duration in which she spoke a short message of four figure groups, usually two or three 4 figure groups, occasionally four or five - even six or seven have been noted. These 4 Figure transmissions went out several times a day, unlike standard messages these particular transmissions always started on the half hour. The first one of which I became aware was in late 1992 which used to start at 17.30 UTC on two frequencies in parallel, 5205 and 8560 kHz. These were usually very strong signals, especially the 5205 kHz outlet; the typically noisy carrier would be on some time before the start of the voice - I recall one Saturday afternoon when the carrier appeared on 5205 kHz a good two hours before transmission time ! *

At exactly 17.30 UTC ten short audio tones would be sent and Cynthia would go straight into her 4 figure groups; these would be repeated over and over for ten minutes and then she would stop. By the middle of 1994, a third frequency had been added to run in parallel with the existing two, 12285 kHz so we can assume these short 4 figure messages must have had some particular importance to be given so much in the way of transmitting resources. Also at about this time there were 4 figure transmissions at 07.30 UTC and two separate 4 figures, each using two frequencies in parallel, at 13.30 UTC, with further 4 figures at 00.30 01.30, 06.30 & 07.30 UTC. Reports from the United States indicated that the same format was also running in Spanish at 00.30 02.30, 10.30 & 18.30 UTC. However, both the English and Spanish language (V14) transmissions are no longer in existence having left the airwaves towards the end of 1995 - by which time the 17.30 UTC had moved to 11072//13465 kHz-no doubt having served their purpose, whatever that may have been !

■ **GERMAN LANGUAGE:** It is worth recalling that at one time there was also a German language (G5) counting station which used the Cynthia format, and all the evidence was that this was operated by the same organisation. This was a rarer find than the American English version, and the German language version was regularly noted from the mid-1980's. The style was exactly the same, a three digit call spoken three times followed by "eins zwei drei vier funf sechs sieben acht neun null" the

*(beginning & end groups in these msgs. were not indicated. Their sequence could have been significant, however -Ed)

German for "5" was pronounced "funf" in contrast to the "funef" of number stations whose origins are more to the east, after ten minutes of this, ten audio tones and the word "gruppen" followed by the number of 5 figure groups to follow, this repeated and then into the message. In the ENIGMA sound archives we have tapes of a very short-lived version which used the word 'zwei' instead of 'zwo' and ended 'zero' instead of 'null'. The German language version of this station seemed to cease operations during 1995, another victim of the redundancies brought about by the end of the Cold War; my own last logging was in March of 1995 on 6780//9219 kHz, two frequencies which interestingly, are still used by Cynthia. Before leaving the subject of the German version it is worth recalling an event from early in 1995; on Sunday afternoons there was a well established slot for the German language version on 9070 kHz at 16.00 UTC; I checked it out on a couple of Sundays during January, however when I tuned in again on 19 February, the German YL had been replaced by Cynthia, and she turned up on Sundays at 16.00 ever since.

■ **SPANISH LANGUAGE:** The CIA have not restricted themselves to just American English and German, a well established Spanish language network also exists, and is still active, (V5), although primarily these transmissions are not well received in Europe and are most likely sent over transmitters situated in North America for agents in the Central and South American region, an area which the USA maintains considerable interest. We are primarily looking at European operations in this feature so I will not expand on the Spanish language activities at this time.

■ **ENGLISH ACCENT:** You will have also noted that we have used the term American English so far- puzzled ? Well, there is also an English accent version of Cynthia, a recording of which exists in the ENIGMA sound archives. The station used the standard (E5) format but the voice used had a distinct English accent. She was very rare catch indeed and was last heard calling '250' with a 102 group message on March 9th 1995.

In part two of our look at Cynthia - to be completed in issue 14 of ENIGMA we will be looking at -

DIGITAL TRANSMISSIONS

JAMMING

MISTAKES

TEST TRANSMISSIONS

SCHEDULES

MESSAGE LENGTH

AND A FULL SUMMARY - Don't miss part two.



SIMON MASON WRITES...

All times are UTC.

Hello again and welcome to another column in the ENIGMA newsletter.

■ First some E10 "strings" heard recently:

6598	20.45	NDP-V	4604	21.30	ROV-E
5530	16.30	MIW-16L46	4604	19.10	ROV-B
6745	16.45	VLB -1646	4604	19.20	ROV-P
4165	20.45	VLB -50L17	4604	19.00	ROV-X

SYN-C & S also noted recently

One interesting point here is that there is a notable similarity between MIW16L46 and VLB1646, although unfortunately the MIW station was broadcast on 28 February 1997 and the VLB string was sent on 18 March 1997, so earlier theories I have seen regarding the connection between the string numbers and the date look rather suspect in this case.

Station ROV seems to be another new call-sign which sends no traffic; it was first noted on 27 March and to date 4604 kHz seems to be the only frequency discovered. More on E10 message strings can be found in part two of our special feature in this issue.

■ Next, some monitoring information, courtesy of Gerry Dexter in the U.S.A., regarding the mysterious "New Star" station in the Far East. Gerry says, "the forever mysterious New Star Broadcasting station (-which some experts say broadcasts from the Chinese mainland and others believe is in Taiwan), continues to be reported on occasion in North America, after a very long time during which there seemed to be no loggings of this at all. 8300 kHz appears to be the most widely heard frequency, perhaps because a signal is more easily spotted there than on 9725 11430 12750 13750 & 15388 which have recently been reported. The station doesn't seem to adhere to any specific schedule, but is active anywhere during the period from around 09.00 to 16.00 or 17.00. The 12.00 to 14.00 period offers the best chance for North American listeners to pick this one up. The broadcasts are short, lasting only a few minutes and consist of number groups in Chinese and some Chinese music. It would seem to be some kind of government-run 'spy' transmitter though, again, no one has definite proof as to which China it belongs to, needless to say New Star broadcasting station has never been QSL'd".

"The still mysterious, always fascinating, New Star Broadcasting station (Xin Xing Guangbo Diantai) is still being heard periodically. Recent reports received at ENIGMA suggest that at 14.00 the station is audible in Europe on the most popular frequency 8300, airing 4 digit groups in Chinese with a flute interval signal, more

of the same can be found at 15.00. Listen out also on 8300 9725 11430 12750 13750 & 15388, some of these are seemingly alternates rather than parallels. Several women do the reading of what are presumed to be coded messages in Chinese."

Hans van den Boogert writing in 'DX Window' DSCI June this year reports several previously uncovered facts about New Star. Hans found an article from the Congressional Research Service called "Report for Congress October 1,1992 - China/Asia. Broadcasting : "Proposals for New U.S. Surrogate Services" written by David A. Hennes, Analyst in Foreign Affairs at the Foreign Affairs and National Defence Division. It dealt with broadcasting to China and the role Voice of America would play in it. We all know the result, as Radio Free Asia is a fact now. But in the appendix there is an interesting paragraph.... At the end of Table 2 are several "clandestine" broadcasting services, all reported to be broadcast from Taiwan. Taiwanese officials did not confirm the existence of these stations. Stations were listed showing the number of hours each was broadcasting - New Star Broadcasting was listed although the source of the list which showed 4 unofficial stations could be assumed to be official information intended to be read and discussed by U.S. Congress.

Hans also wrote to the BBC Monitoring Service based at Reading. The reply was rather non-committal " I'm afraid we don't have much information on the New Star station. It's not the sort of thing we normally monitor as it appears to be a coded numbers type of operation rather than clandestine broadcast station. We did investigate it with the help of some Japanese DXers in 1989 when it was thought to be based in Taiwan and aimed at China - but I suppose it could also be the other way round. As to its purpose I really have no ideal Dave Kenny, BBCMS".

■ Next, an appeal on behalf of Don Schimmel who asks for information on the Soviet station RTZ, Don writes: "I am seeking information on a station active during WWII and into the late 1940s which used the call-sign RTZ. It is believed the station was located in Russia and the transmissions were in high-speed Morse code. It is not know if this was a Soviet Military or KGB controlled activity. It evidently had no connection with the Time Signal station RTZ which came into being at a later date." If you have any information on RTZ please write to us at the ENIGMA office. Thank you.

■ An unusual incident occurred on 28 April 1997 during the daily Russian man transmission (S25) on 11270 kHz at 08.20 UTC. As usual there was the 615 call up; 615 615 615 43497 43497 43497 from 08.20-08.30, then 615 615 615 41577 41577 from 08.30-08.40 and closing with 615 615 615 00000. However, in the background continuously was CW station with a hand keyed "VVV VVV VVV DE UKU" the hand keying was to say the least, not very good! I cannot find any record of this particular station in any reference work, but obviously it is suspected to be Russian in origin.

■ In a future column I will be introducing "Ten Years Ago This Week" a section where I will look at the pages of my log-book from ten years ago.

With the return of full length messages from S10) - the old so-called "Bulgarian Betty" station and English language voice station E18) returning from the grave the need for Numbers Stations in the 'hi-tech' age continues !

■ Staying on a similar theme, cue the fanfare and drum-rolls: a new G16) German language Two-Letter station has appeared along with a new E16) station in English. All this when the signs were that this set up was dying a slow death, activity has picked up somewhat. GOLF KILO pitched in on 18 March at 21.30 on 5284 with 856/39 and 846/61, a combined total of 100 groups, the same average traffic that these stations had in their heyday.

WHISKY LIMA is still a regular and was heard on 8 June at 10.00 and should be using 12092 every Sunday in July at this time. MIKE DELTA is very much more active and can be heard every Tue/Thu/Sat/Sun at 09.00 and either 13.30 or 14.00. It is currently using 11545 12210 12314 13775 13890 14622 16220 and 16414 in various combinations of months and days.

The big news is the appearance of a new station in the German language called FOXTROT ROMEO which was heard on 13890 at 09.00 on Sunday 8 June in the background (foreground ?) of the regular MIKE DELTA transmission. It was definitely stronger than MIKE DELTA and one suspects that it could be either a regular transmission usually sent on another frequency at the same time but similar in output or location to the NOVEMBER QUEBEC station heard in the U.S.A. or a new call-sign which on this occasion mistakenly sent on the wrong frequency. The identifiers used were 565 for MIKE DELTA and 043 for the new FOXTROT ROMEO which incidentally was previously used by the German language station ALPHA LIMA.

Following the discovery of FR a further Two Letter station this time in English was noted, DELTA ROMEO was heard on Tuesday at 07.00 on 12210 with a 'message for' 131- sending 87 groups. 131 is an old identifier previously associated with PAPA LIMA.

This activity however has to be put into some context. In August 1994 there were still 16 call-signs in use namely,

VO SB KW HK AU JW OA RD GK MD CD BN CN WL DA & VI.

By February 1996 the number of stations was pared down to just 6 call-signs,

GK SB CD MD WL & HK.

By June we were holding on at the very edge of 'ENDE', GK MD WL & the short-lived OK were holding this previously huge operation together.

At the time of writing, we have,

GK MD WL FR & DR (The rare AU is still around using 4821//4888 and 6370

■ Some news from around Britain now. Intelligence scoops by British spies are now flashed to special computer terminals around Whitehall. The security and intelligence services have been linked to government departments by an encrypted electronic messaging system. The three security and intelligence agencies - MI6, MI5 and GCHQ, - have been linked to the Ministry of Defence, the Foreign Office and the Department of Trade and Industry.

MI5 are not alone in advertising for staff. An Information Technology Security Instructor is required at The Defence Intelligence and Security Centre based at Chicksands in Bedfordshire. The role calls for a person to assist in the development of, and lecture on, all IT Security Courses run by the Branch; liaising with UK intelligence and security organisations. The post is open to UK nationals only. (Incidentally, this site includes many interesting new features - firing range, 'psyops' section, 'Special Comms. Training Section' etc. Eds).*

Perhaps your skills are more linguistic ? The (Government run) Recruitment & Assessment Services are seeking linguists based in central London. A degree in Chinese, Arabic or Persian, with a proven ability in comprehension and translation is required along with a knowledge and understanding of the culture and current affairs of the areas where that language is used. For these appointments British citizenship is required.

And last but not least, Britain is setting up an international telecommunications tapping system with its EU partners in cooperation with the FBI. The agreement covers telephone and written communications - telexes, faxes, e-mail and satellite-based telecommunication systems. It looks like number stations will be around for a while yet!

◆ That just about wraps things up for this time, so in the words of New Star Broadcasting - "Zaihui", Good-Bye, until the next issue and my best wishes to everyone.

IN THE NEXT ISSUE OF ENIGMA

Part Two of our E3 feature on Lincolnshire Poacher
Part Two of our E5 feature on The Counting Stations
A look at the legal position of listening to Number stations.
Plus all our regulars - Letters, Morse & voice Station News, 'Buzz'.

Letters logs news, clippings and information would be appreciated to arrive by Friday November 28th 1997. The next issue of ENIGMA will be published Mid-January 1998.

(* DISC's logo consists of a gothic arch surmounted by a rose. The rose traditionally symbolises secrecy, as in "Speaking under the rose". Combined with an arch the symbolism is associated with secret societies. The arch features in the higher degrees of Freemasonry, i.e. Royal Arch Freemasonry - Eds)

E3) LINCOLNSHIRE POACHER. A special report.

Part 1.

UTC	MON	TUE	WED
10	H 16084/15682/14487	D 16084/15682/14487	H 16084/15682/14487
11	D 16084/15682/14487	H 16084/15682/14487	D 16084/15682/14487
12	F 16084/15682/14487	F 16084/15682/14487	F 16084/15682/14487
13	I 16084/15682/14487	I 16084/15682/14487	I 16084/15682/14487
14	B 14487/12603/10426	C 16084/14487/11545	D 16084/15682/14487
15	A 15682/13375/11545	B 10426/8464 /7755	C 16084/14487/11545
16	H 13375/12603/11545	A 15682/13375/11545	B 10426/ 7755/ 6485
17	G 11545/ 8464/ 6959	H 13375/12603/11545	A 16475/14487/12603
18	F 12603/ 9251/ 7337	G 9251/ 6959/ 5746	H 11545/ 9251/ 6959
19	E 12603/ 9251/ 7337	I 11545/ 9251/ 6959	G 8464/ 6485/ 5746
20	J 11545/9251 / 6959	F 12603/ 9251/ 7337	I 11545/ 9251/ 6959
21	D 11545/9251/ 6959	E 12603/ 9251/ 7337	F 12603/ 9251/ 7337
22	C 11545/10426/ 6959	D 11545/ 9251/ 6959	E 12603/ 9251/ 7337

	THU	FRI	SAT
10	D 16084/15682/14487	H 16084/15682/14487	H 16084/15682/14487
11	H 16084/15682/14487	D 16084/15682/14487	D 16084/15682/14487
12	F 16084/15682/14487	F 16084/15682/14487	F 16084/15682/14487
13	I 16084/15682/14487	L 16084/15682/14487	I 16084/15682/14487
14	E 16084/15682/14487	F 16084/15682/14487	G 14487/11545/10426
15	D 13375/12603/11545	E 13375/12603/11545	F 13375/12603/11545
16	C 14487/12603/ 8464	D 13375/12603/11545	E 13375/12603/11545
17	B 8464/ 6485/ 5422	C 16084/13375/11545	D 13375/12603/11545
18	A 16475/14487/12603	B 8464/ 6485/ 5422	C 16084/13375/11545
19	I 11545/ 9251/ 6959	A 15682/13375/11545	B 8464/ 6485/ 5422
20	H 11545/ 9251/ 6959	I 11545/ 9251/ 6959	A 11545/10426/ 6900
21	G 9251/ 6959/ 5746	H 11545/ 9251/ 6959	I 11545/ 9251/ 6959
22	F 12603/ 9251/ 7337	G 9251/ 6959/ 5746	H 11545/ 9251/ 6959

SUN

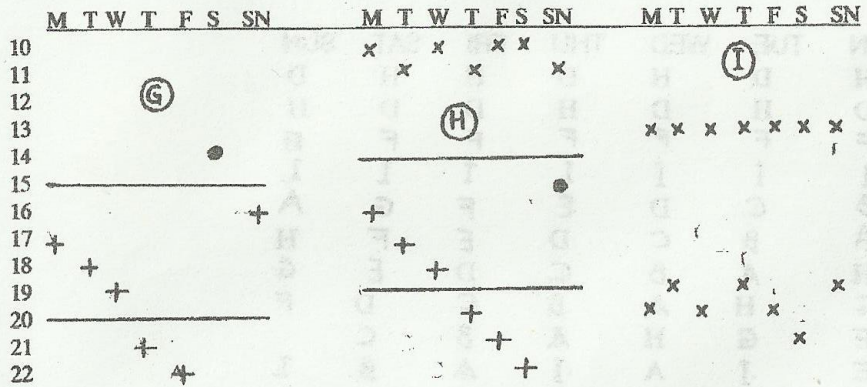
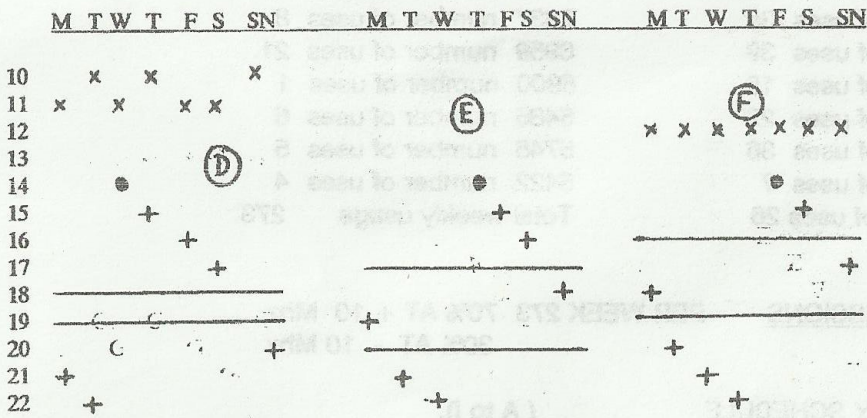
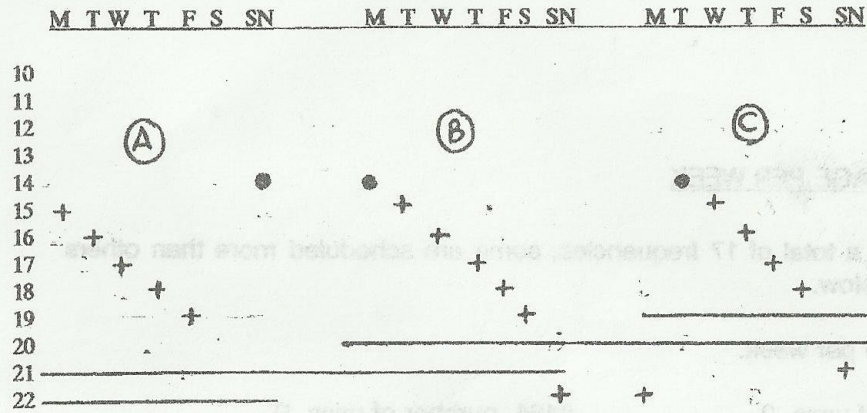
10	D 16084/15682/14487
11	H 16084/15682/14487
12	F 16084/15682/14487
13	I 16084/15682/14487
14	A 16084/15682/14487
15	H 13375/12603/11545
16	G 11545/10426/ 8464
17	F 13375/12603/11545
18	E 12603/ 9251/ 7337
19	I 11545/ 9251/ 6959
20	D 11545/ 9251/ 6959
21	C 9251/ 6959/ 5746
22	B 8464/ 6485/ 5422

This special four page report shows the full weekly operating schedule and includes all frequencies and schedule identification.

Part 2. in issue 14.

FULL ANALYSIS OF SCHEDULES

Full analysis of the weekly schedule breakdown A to I reveals some interesting patterns of just when each recipient is tuned in.



• 1400 commencement of sliding schedule (H - 1500)
 + subsequent sliding schedule slots
 x - fixed schedules: daily or alternating
 - - - time slot excluded from sliding schedule

Total transmissions 273 per week. Special thanks to Andreas and all ENIGMA readers who send us E3 logs.

TOTAL TRANSMISSIONS PER WEEK

Lincolnshire Poacher transmits 273 X 45 minute slots per week. These messages are sent out to 9 separate headers which we have titled A to I.

FREQUENCY USAGE PER WEEK

The station uses a total of 17 frequencies, some are scheduled more than others as we can see below.

Frequency usage per week.

16475 number of uses 2	8464 number of uses 9
16084 number of uses 35	7755 number of uses 2
15682 number of uses 35	7337 number of uses 8
14487 number of uses 39	6959 number of uses 21
13375 number of uses 15	6900 number of uses 1
12603 number of uses 22	6485 number of uses 6
11545 number of uses 36	5746 number of uses 5
10426 number of uses 7	5422 number of uses 4
9251 number of uses 26	Total weekly usage 273

TOTAL TRANSMISSIONS PER WEEK 273 70% AT + 10 Mhz
30% AT - 10 Mhz

WEEKLY SCHEDULE (A to I).

UTC	MON	TUE	WED	THU	FRI	SAT	SUN
10	H	D	H	D	H	H	D
11	D	H	D	H	D	D	H
12	F	F	F	F	F	F	F
13	I	I	I	I	I	I	I
14	B	C	D	E	F	G	A
15	A	B	C	D	E	F	H
16	H	A	B	C	D	E	G
17	G	H	A	B	C	D	F
18	E	G	H	A	B	C	I
19	E	J	A	I	A	B	L
20	I	F	I	H	I	A	D
21	D	E	F	G	H	J	C
22	C	D	E	F	G	H	A

E3 LINCOLNSHIRE POACHER

Msg Group	Time slot 10-1300	Time slot 14-2200	Earliest transmission (1400) of sliding schedule commences:	Number of daily transmissions	Number of messages per m.p.	Significant freq. use
A	-	S All exc 21 & 22	Sun (up to 2000)	1	1	10+
B	-	S All exc 20 & 21	Mon	1	1	-10
C	-	S All exc 19 & 20	Tue	1	1	
D	Alt 10/11	S All exc 18 & 19	Wed	2	1-3	
E	-	S All exc 17 & 20	Thu	1	1	
F	Daily 12	S All exc 16 & 19	Fri	2	1	
G	-	S All exc 15 & 20	Sat	1	1	-10
H	Alt 10/11	S All exc 14 & 19	Sun (from 1500)	2	1-3	
I	Daily 13	Alt 19/20/21	-	2	1-6	

*10-1300 used only by D,F,H & I. All on same freqs.: 16084//15682//14487 I's later trs always use 11545//9251//6959 only.

S = sliding schedules - used by all message groups except I - operate in 14-2200 time slots. None of these slots available daily, but only seven used per message group. (one for each day of week) Of the two omitted, at least one is from the 19-2145 period. This is due to the needs of the anomolous I message group. All sliding schedules (except A) end at 2245.

F sends two daily trs despite its single message per m.p. This may indicate a high priority.

Assuming that the 10-1300 slots are timed for local lunchtimes, F,D & H would indicate Middle Eastern target area (UTC +3) and I would indicate Britain. A's freq use indicates longer distance than the rest. B & G short distance. On Saturdays I uses 2100 in place of 'expected' 2000 (compare D & H Fri/Sat 10/1100); this is necessary in order to maintain the pattern of the A schedule in relation to B-H. (see diagram below)

TIME/MESSAGE GROUP SCHEDULING

	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	Commences 1400 on:
A	O	O	O	O	S	S	S	S	S	S	S	O	O	Sun
B	O	O	O	O	S	S	S	S	S	S	O	O	S	Mon
C	O	O	O	O	S	S	S	S	S	O	O	S	S	Tue
D	A---A	O	O	O	S	S	S	S	O	O	S	S	S	Wed
E	O	O	O	O	S	S	S	O	S	S	O	S	S	Thu
F	O	O	D	O	S	S	O	S	S	O	S	S	S	Fri
G	O	O	O	O	S	O	S	S	S	S	O	S	S	Sat
H	A---A	O	O	O	O	S	S	S	S	O	S	S	S	Sun (1500)
I	O	O	O	D	O	O	O	O	O	A---A---A	O	O	O	-

Daily
S = sliding schedule transmission
A---A = Alternates slot throughout week.
D = Daily transmission (fixed time)
O = No transmission
m.p. = message period - see next issue.

INDONESIANS IN PARIS?

by M.G. (research by I.)

The above title refers to the Numbers Station which calls itself 8BY (M16). It's one of those mavericks that chooses to use bogus callsigns. Internationally, the 8B prefix is allocated to Indonesia, however, 8BY has its roots very much in Europe, and is actually run, we are reliably informed, by French intelligence. Along with PBK, VDE, EC3Y, C37A, 6XM8 etc it uses its callsign illegally, as it is not registered with the ITU, nor could it be.

This station is not a typical 'text type' numbers outfit; its format doesn't lend itself to sending messages of this type. Nor is it of the 'control' type: it's entirely in a category of its own. It is an extensive operation, transmitting on three parallel frequencies for 20 minutes, 24 times a day. Always commencing its transmissions at h + 40, it may use any three of the following freqs.: 7668 12075 (BC band!) 12170 12282 14931 18415 20946. This selection - there may be others - suggests a worldwide operation which does not include Europe. Signal strengths on any particular frequency are prone to wide variation from one hour to the next, which suggests that particular time slots are beamed to different parts of the world.

FORMAT As the short 'message' is repeatedly sent for 20 minutes there is no need for a call. It merely identifies its illegal status by sending its callsign prior to every 'message run'. These so-called messages consist of a number of three figure groups - sometimes as little as two - separated by stroke/oblique symbols in Morse. A typical example would be: "VVV 8BY 848/487/445/033/429" (R20) Between two and twelve groups may be sent. These groups are not random, but are chosen from a pre-arranged, systematically organised sequence. Any one group always appears between two other sequentially related groups, and never before the first or after the second.

Messages appear to be in 'families'. As an example, the family that contained one or more of the groups 262, 306 & 095 - all of which are common to many messages - has been chosen from a sample of loggings. Other groups appear between these three groups. In a sample of 25 such messages, eight contain 262, nine contain 306 and eleven, 095 (and eleven, 958, as it happened). Other groups that appeared between these key groups could, on examination, also be placed in the sequence, due to the frequency of the KGs.

Generally the KGs appear in the earlier parts of the messages, whereas the tail-ends contain very few repeated groups, and a large proportion of groups that appeared only once in the 25 message sample. Sequential positioning of these groups is hence impossible. A few examples of this 'family' of messages

are given in the accompanying table. (All dates refer to 1994/5) On 6th January group 095 was placed out of sequence, presumably in error. The use of 262 would appear to have been curtailed after the end of 1994, but this could be due to the randomly compiled loggings taken. Some KG msgs could also have been missed. Alternatively, 262, if an agent, may have gone on holiday! It is possible that the KGs refer to particular agents, and that the other groups provide some kind of minimal message function, and may or may not be encrypted. BBY is an extremely complex station, nothing like as straightforward as it at first appears. More could possibly be gleaned by long-term traffic analysis - any volunteers? Thanks go to Ian (Dorset) for his valuable research into this station.

[The French government seem to favour bogus callsigns, as their MFA in Paris uses the non-ITU registered call P6Z when communicating with its embassies abroad. These also use similar bogus calls - e.g. V5G Bucharest etc. Other countries use legitimate callsigns for this purpose. Why the French hide behind this cloak of anonymity and do not conform to international law in this respect, is a mystery. Perhaps it is so that they can include their numbers stations within a similar callsign structure - an attempt at concealing their identity?]

In response to our appeal for information on the Stay Behind Networks, we received some most interesting information from two sources. (Many thanks - you know who you are!) We're still collating material and conducting further research, and will publish at an appropriate time.

Could 'J' of Cheltenham please contact us. We do not have your address, and have no way of contacting you. The material you sent was of the highest grade, and was greatly appreciated - quantity and quality is rare. It ties up several loose ends, but there are many points that we'd like to discuss with you, before we consider publishing anything yet.

SITES - We received a fair response, however, we still need more people willing to research into this important subject, especially in Central Europe. We'll provide as much help as we can, and a free subscription to ENIGMA! We can also provide you with constructional details of simple but effective HFDF aeriels and goniometers, and advice on DF techniques. Thanks go to G.F., K.S., B.W. and D.Z. for volunteering.

DZ - Please continue corresponding by other means. 111/5/7

PQ - 505/9855 9847 7843 6632 9561 0647 8231 0503 4387 2316
7583 9076 8884 3426 8550 1310 4331 5672
509/111 by OM: U - G or I, D - Y or V

THINGS THAT GO BUZZ IN THE NIGHT !

Welcome along to another Buzz page. Most of our old favourites are still around and we will just give them a quick mention this time. There are quite a few other signals up and down which are unknown modes, but the problem in reporting them is that they will not sit still on one frequency, nor in some cases generate a consistent reportable signal. I will give some of the regulars a rest after this issue unless they make any significant changes or I have new information for you.

The main news this issue concerns further developments with the HAARP project.

▲ HAARP - sadly issue 12 of ENIGMA was published just too late to tell you about the first 'public' test transmission from the HAARP station. This was conducted in the full media glare on Saturday March 8th to the following schedule.

	Vertical beam	
04.30	6990	Carrier only for 5 minutes
04.35	6990	Morse code message for 5 minutes
	Beam pointing South East towards USA	
04.40	6990	Carrier only for 5 minutes
04.45	6990	Morse code message for 5 minutes
	Vertical beam	
04.50	3300	Carrier only for 5 minutes
04.55	3300	Morse code message for 5 minutes

The test was conducted using 17 of the umbrella antennas and a power of 340 KW. By the year 2002 the facility will have expanded in two phases of 48 and then 108 antennas to a peak of - 180 antennas which will be fed by 30 transmitter shelters each containing 12 transmitters of 10 KW each, this will give a total RF power of 3.6 Million watts of power !

Ken in Doncaster who kindly sent me the information reported only poor reception of the 6990 transmission, I don't know if any other readers who managed to tune in had better luck - please let me know if you had any joy and also received a QSL card.

When the transmitter is testing there is a telephone number to call to report interference - this will be manned during the tests. HAARP is supposed to operate on a non-interference basis and must shut down in the event of interference caused by the facility. The telephone number is 1907 822 5497.

The address of the HAARP facility is HAARP, PO Box 271, Gakona, Alaska, 99573 or by E-mail at WWW. HAARP. ALASKA. EDU

HAARP remains controversial and the parties pro and con seem to be moving further apart but whichever side you choose HAARP is certainly worth watching!

▲ THE PIP - This is still around on 3757 and 5450. It is audible mixing with RAF Volmet on the latter frequency. Transmissions from the Iraqi-based Voice of the Mojahed are heavily jammed from nearby Iran (pity they have to use so much power) which makes 5450 sound like a faulty washing machine on full spin. I doubt that RAF Volmet will sit it out much longer on this frequency. As for the PIP still no location or purpose has come to light!

▲ THE CRACKLE - Again no real news, I'm afraid. Still around on 5500/5505 also 6584 (same frequency as used by Backward Music station - but not at same time) and also noted on 9139 and 10270 occasionally.

▲ THE BUZZER - Alive and well on 4625. Some interesting news from Mike in Kent, on April 13th and April 20th (during very hot weather in Britain) Mike noted not one but two Buzzer signals on 4625 around 14.00 and 15.00. The signals were operating out of synchronisation and the second one was of a higher tone and even weaker than the normal signal. I wonder if any readers have ever heard two transmitters on 4625 ? Perhaps readers further to the East may be able to hear something. Please let me know.

Mike also wrote to me about some other unidentified 'Buzzer like' noises on frequencies high up the band. He mentions signals between 25500 and 27700 any ideas what these rasping sounds may be ? All heard during daytime hours in early June.

▲ BACKWARD MUSIC STATION - Very active on 6584 also noted on 5180 6695 6752 and 8984.

▲ THE ECHO - This is becoming more elusive it was lost and recently found again on 3876 but alas ! it has gone to ground once again.

▲ FADERS - I guess some readers will be sick of me mentioning these. I am always amazed at how busy they are, yet seem to attract no interest or attention anywhere outside the pages of ENIGMA. (thanks to Richard for the logs) Surely someone must be able to break this one - what are they - where are they - who are they? Help!

I will give the frequencies again -

3191	4023	5090	6505	7387	9125	10142	The signals normally operate
3217	4062	5110	6796	7500	9138	10480	in 7.5 second bursts making up eight
3382	4457	5195	6825	7658	9225	11100	bursts per minute exactly. The distinct
	4478	5313	6848	7813	9245	11517	'rasping' sound is quite wide consisting
	4496	5328	6878	7997			of a multi-channel FM signal operating at
	4563	5400			13431	500 HZ 1100HZ 1400 HZ 2kHz 2.6 kHz	
	4845	5468				3.4 kHz	
		5788					

That's all from Buzz, this issue - please keep sending your reports. Thanks.

So where do we go from here ? Well, I must admit that 'Langley Pierce' had the right idea when he tackled the subject in his book ; he concentrated on just 6 callsigns and headed everything else 'special broadcasts'. However I am not going to follow this route and at the risk of producing a long article intend to give you all the known facts.

A little earlier I mentioned the habit of throwing all the callsigns together under one heading. So now I would like to break the stations down into the three headings.

Before doing so I feel it is worth mentioning that I am dealing with the present operating position. Going back to some of those unconfirmed callsigns will likely confuse both you and me !

The following is based on monitored information received from ENIGMA readers and our own efforts.

Three station types.

- 1) High traffic stations Day to day operations ?
- 2) Low traffic stations General alert transmissions ?
- 3) Non traffic stations Deep cover/mission specific ?

Lets look at each type and its particular habits.

1) High traffic stations. These are perhaps the ones you hear most often and follow the standard message operating format described in the example of VLB at the start of our feature. Stations of this type have a regular schedule and follow predictable time lines.

Type one stations are ART EZI FTJ JSR KPA PCD SYN ULX VLB & YHF
(& the now defunct GPO)

2) Low traffic stations. These stations do not send regular standard messages but do still maintain a regular schedule. These appear to have a different purpose to type 1 stations.

Type two stations are CIO & MIW

3) Non traffic stations. These stations are somewhat more difficult to pin down and do not seem to send any standard traffic messages. They also do not appear to have a set schedule and finding them is more a matter of luck than of judgement.

Type 3 stations are BAY GBZ OEM NDP TMS ZWL & ROV

Having now identified the 3 types of station it is possible to move onto traffic analysis. This is perhaps the most enlightening part of the mystery.

Type 1 stations are the 'bread & butter' of the communications system, sending out a seemingly endless number of rota style messages. It is not possible to ascertain whether traffic is sent for individuals or groups but messages do stay on the system for a period of time and would appear to be repeated until such time that HQ is satisfied that they have been received.

Type 2 stations do not send regular traffic and are prone to long periods of idling followed by bursts of activity. The purpose of CIO and its sister station MIW are of course unknown but monitoring would suggest that these two stations are some type of general alert system and may serve to communicate more blanket information in the form of both traffic messages and special message strings.

Certainly in the case of both callsigns, when traffic does occur it is not unknown for a single message to be transmitted continuously for 24 hours per day non-stop.

Type 3 stations are perhaps even more incomprehensible in nature and could best be described as an inverted version of type 1 stations. Type 3 stations have never been heard to send traffic messages. Moreover they appear without warning and send peculiar message strings consisting of additional letters and numbers added to a repeating call sign before disappearing into the wilderness until discovered again by a bit of chance tuning.

Just before we move onto message strings it may well be worth writing a few lines about the phonetic code system. Some time ago we received a report that the system used was call 'Aroflex' a crypto system of 5 Letter groups developed by Siemens for NATO wide use. Any further information on this would be appreciated.

It would seem unlikely that all field agents decrypt the messages by hand and some in less sensitive situations would probably use equipment similar to the Gretacoder DH-26 hand-held encryption unit. The equipment's algorithm assures maximum security with 10 to the power of 52 user-selected code combinations. It is of course the case that any agent found with such equipment in their possession would be presumed guilty of clandestine activity.

Such equipment uses the triple key principle. An elementary key is the first secret element and is periodically changed by the user himself. A Combiner key is the second and independent secret element. It determines the encryption algorithm and may be reprogrammed on longer terms. An auxiliary key generated automatically by a random generator for each new synchronisation eliminates the need for a frequent change to the elementary key without impairing the cryptographic security.

Not only would these be used to decrypt an incoming message but such units also have a Message Key which is used to generate the mathematical programme to encipher a message ready for sending back to H.Q. These messages can then be sent on to the intended recipient by any transmission media without fear of compromise. Intermediate intervention is not a concern. Only the receipt with another DH-26 and knowledge of the unique code can decipher the message.

So far so good, we have identified the three types of station and given a broad outline of their operating characteristics. So just what can we learn from traffic analysis? Back again to the three types of stations, I'm afraid.

We are now heading into a black hole - if I could answer some of my own questions I would probably get a job at GCHQ but I regret to say that much of the following is 'calculated guesswork'.

MESSAGE STRINGS - WHAT DO THEY MEAN ?

Type 1 & 2 - High & Low Traffic Stations. Most readers will be familiar with the well known suffix numbers e.g. VLB1 VLB2 & VLB3 etc.

It would seem to be the case that these numbers do not, as previously mentioned, indicate 'no-message' or 'test transmission' but are in fact a shorter version of the more common stutter groups (11111,22222,33333 etc.) used by many other number stations to convey a fixed response.

Example only - 11111 - We require you to re-transmit your message.
 22222 - We have received your incoming message.
 33333 - Await further message string.

In the case of E10 stations the number has been reduced to a single digit rather than three or five digits.

So what are all the VLB 28 P14Z36B53T20's all about.

These are not now in fact believed to be messages as such, not at least in the sense of something to be decoded. They do not convey something along the lines of " Meet Cazab at the Research Station ".

So what are they ?

VLB	28	P14	Z36	B53	T20
Station Callsign					
Purpose	Unknown				
		9119 kHz!			
		20.10			
THE LETTER INDICATES A FREQUENCY			8341 kHz!		
			20.35		
THE NUMERAL INDICATES A TIME				7447 kHz!	
				20.55	
THESE ARE USED TO CREATE A WINDOW FOR THE RETURN OF THE BURST MESSAGE TO HQ.					6855 kHz!
					21.05

It would seem a strong possibility that these message strings are in fact operational instructions to field operatives to send burst transmission messages back to HQ. The system operates a coded format of the familiar Maritime RTTY set-up that continuously churns out the frequency (letter code P for example) & time (numeral 14 for example) used for the transmission of incoming messages from field operatives. It would seem likely that the system is based upon giving the operatives numerous opportunities to transmit a message back through an 'open window'. The time/frequency given in code would be available to the listening station who would attempt to 'catch' the incoming message.

LOOKING BACK with 'D'

GDR SPY CACHE IN THE SUBERBS - THE CASE OF REINHARD AND SONJA SHULZE

On August 19 1985, Hans Joachim Tiedge, a West German BfV officer defected to the GDR. He had been in charge of West Germany's efforts to thwart GDR spying in the West. His defection heralded a series of arrests on both sides of the Iron Curtain.

In particular, on August 23, Special Branch raided 249 Waye Avenue in Cranford, Middlesex to arrest a German couple called Schulze who were living in this rented house near Heathrow airport. The man, Reinhard, was a kitchen designer and his wife called Sonja was a translator. Nobody suspected that they were actually long-term HVA undercover agents, had been sent to Britain to spy by the GDR and were recipients of number transmissions in Morse from East Germany....

The man had entered the UK in 1980 as Schultz with a West German passport but had identity papers in the name of Bryan Waldemar Strunze. The real Strunze had been born in the UK after the war with an English mother and German father. He had gone to Erfurt in the GDR and was not heard of again. Then in 1980 Reinhard Schulze appeared in Britain to rent a holiday flat for a few months before disappearing abroad, and then finally coming back to Britain for 4 years. Reinhard lived in Hounslow as a student of interior design and despite this, appeared to have plenty of cash as he paid his rent well in advance and even installed a phone in his flat. His landlord worried about what a quiet life this 33 year old led who never received visitors.....

Richard spent most of his time studying and took up a postal course in interior and kitchen design, passing with merit in 18 months instead of the normal 2 years.

The school were so impressed that they recommended him to a Kingston company who were looking for a designer and salesman in 1983. He had by now been joined by his 36 year old "wife", a female HVA agent, whom he said he had met in Dublin, Ireland on holiday the previous year. They then married at Hounslow Registry Office. Sonja Schulze used the Austrian name Ilona Hammer when she came to the UK and was doing advanced courses in English before starting work as a translator. They lived a life of quiet suburban anonymity and Reinhard's work was regarded as "superb" by his bosses in the kitchen firm as he generated £500,000 of contracts in a few months.

When their home was raided, the Police spent two days ripping up floorboards and dismantling furniture. The search continued for a month and the most important evidence was in the garden shed. In an air freshener were 3 little plastic wallets containing papers. Two had German words on them set against a list of figures, presumably to encipher and decipher messages. The third contained a paper with printed figures on it and these OTPs were shown to the court. Each one was the size of a large stamp and a five figure code was later found on a note pad in a desk and this featured in a CW transmission broadcast from East Germany. Two thirds of one of the pads had been used up and the pad had 50 blocks of 5 digit groups per page. Recent messages from the GDR picked up by GCHQ were found in code at their home. A radio receiver was also found and this was said to be able to receive

messages from the GDR. This was a small Sony portable with LCD display and there was also a tape recorder I seem to remember. Also found was an escape kit containing a false British passport for a man and a West German identity card for a woman as well as a large amount of cash. The kit was in an envelope hidden in the lining of a bag which the Police slit open.

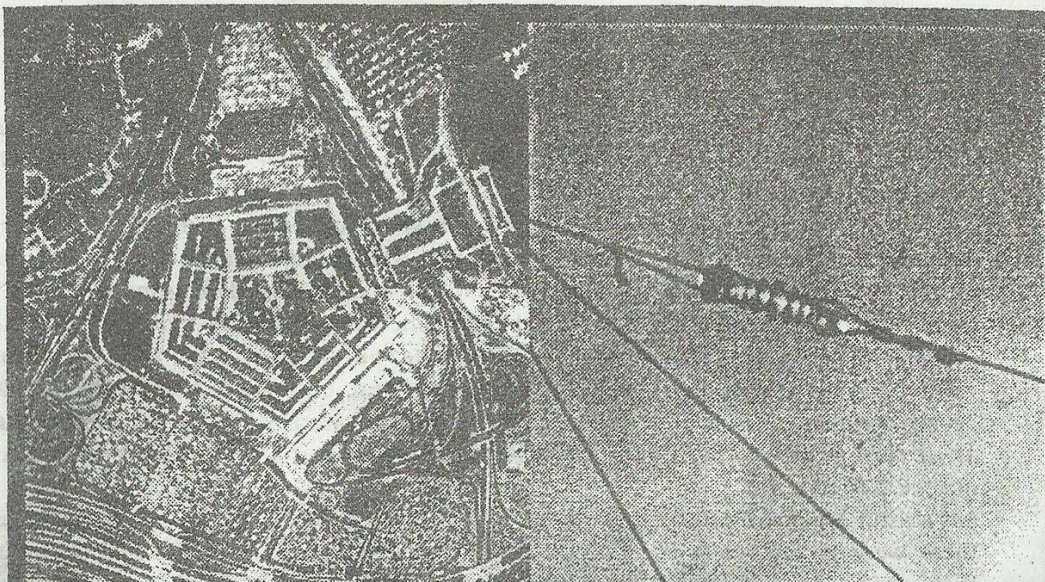
The Schulzes received regular messages which were impossible to break, but experts detected a call-sign in the blocks of numerals. Under surveillance they might have told MI5 much about HVA operations and agents but the defection panic forced MI5's hand. They were the first illegals from the Soviet Bloc to be arrested in this country since the Portland case in 1961. The question of why they were here remained unanswered. It was suggested that they were engaged in technical espionage against companies in the Thames Valley or perhaps were sleepers for wartime use. Their close proximity to Heathrow suggested that they had a quick escape in mind, as did the Krogers.....

No master spy was found and it appeared that the GDR's plan had not matured and there were no others in the ring. They had collected maps and information on the flight paths to and from Heathrow, Stanstead, Luton, Gatwick and Manchester airports. There was also an interest in routes and plans for numerous towns in England. The thrust of their work remained unknown, however. There was no transmitter but there was a desk-top computer owned by Reinhard. It was felt by one source that the GDR used such equipment to send computerised burst messages by telephone.

It was found that they had made three trips abroad between 1982 and 1983 and that cash deposits of several thousands of pounds had been made in bank accounts in England and Ireland after each trip. Sonja placed £13,000 into her account yet at that time she had never worked !

In the Police interview however his legend was shown to be flawed as he did not know that the real Strunze had a half-brother living in England or other simple details of the family. Both of them changed their stories simultaneously after they were arrested. It appeared that they betrayed by a defector to West Germany or by Oleg Gordievsky who had dealt with illegals as part of his duties. Reinhard was also charged with making false statements to obtain a passport, and the false application may have given him away. They had to be arrested before they destroyed evidence and fled, as one GDR suspect had already fled the country the previous year.

Neither of them gave evidence at their trial but they admitted to Police that they had given false identities to them. She denied having a false Austrian passport and he denied having an irregular West German identity card. Both of them denied spying but at their trial they were described as "intelligent, talented and determined" and received sentences of 10 years each. The Judge recommended that they be deported at the end of their sentences. He admitted that their real identities, damage done to the UK and what intelligence, if any, had been sent to the East was unknown. They were well-trained and well-equipped to pass and receive information secretly. Perhaps their details are in some Stasi file which was destroyed or fell into Western hands ? Maybe Mr Tiedge could shed light on it as he now lives in retirement in Moscow, where he move after German reunification. Perhaps they now work for the BND as they must have finished their sentences by now. They were, and remain to this day, an ENIGMA.....



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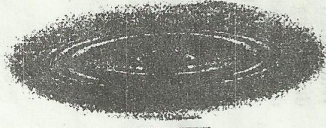
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